

FOCUS

SAMSUNG'S EARNINGS SHOCK

Faith Shaken,
Casting Doubts on Future

ECONOMY & FINANCE

CURRENCY TRIANGLE

What Are Potential External
Threats to Korean Economy?

INDUSTRY & COMPANY

REVERSE DISCRIMINATION

Korean ICT Companies
Suffering from Regulations

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Economic Outlook for 2014

Korea Expected to Post Higher
Growth Rate This Year

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**We Need "Total Recall"**

Foreign news outlets have poured out reports about Korea as an IT powerhouse for years. CNN reported last year that Korea ranked first both in Internet penetration rate (82.7%) and smart phone penetration rate (78.5%), adding that the figure astonishingly amounts to 97.7% in the age group of 18 to 24. The New York Times quotes the World

Economic Forum to report that Korea is the country with the world's fastest Internet services among 148 countries around the world.

There is no doubt that Korea is the most connected country in the world, but it is also true that it has been very vulnerable to cyber crime. The number of hacking attacks has increased 20-fold during the last five years, and Internet etiquette is still at a very low level.

Under the circumstances, an unprecedented leakage of personal information occurred, in which over 104 million sets of credit card information were compromised, striking a staggering blow to the security of this credit-based society, as well as the international standing of Korea as a global IT leader.

The Korean government has tried hard to prevent online personal information theft by a variety of means, including the prohibition of the use of stolen information in loan marketing and penalties on financial institutions that have leaked personal information. Nevertheless, such measures have not worked well on-site.

The number of credit cards issued in Korea exceeded 100 million a long time ago, which means every single one of the economically-active population has at least five credit cards. According to the Korea Financial Welfare Policy Institute, credit cards account for 60% of the household spending in Korea, whereas the percentage is just 15% in the United States.

IT-based financial services have boosted the convenience and efficiency on the part of users and banking organizations alike. However, these entail inevitable security problems.

Most advanced economies focus more on security than on efficiency when it comes to banking systems. Awareness of the property rights and the danger of information theft is high in these countries, and anyone involved in a scandal or accident is to bear strict responsibility. However, Korea is lacking such awareness, and the internal control systems are not functioning very well.

As such, the recent mega-scale accident has brought about a compulsive need to recall all the security systems across the nation. In particular, the government should strengthen personal information protection by changing the current identification system used widely in daily life, along with the revision of the Personal Information Protection Act. Likewise, financial institutions themselves will have to ensure higher security standards by setting up new internal security management and monitoring systems.

The current scandal has to be turned into an opportunity for higher security standards to be set in addition to the current convenience from which everyone benefits.

Park Jung-hwan,
 Publisher & Editor-in-Chief



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Samsung's Earnings Shock

Faith Shaken, Casting Doubts on Future



▼ Samsung Electronics' headquarters building in Seocho-gu, Seoul, South Korea.

Samsung Electronics' sales revenue for the fourth quarter of 2013 was 8.3 trillion won (US\$7.8 billion), down 18 percent from the previous quarter.

Samsung Electronics announced on January 5 from preliminary estimates that its sales revenue for Q4 was 59 trillion won (US\$55 billion), and operating profit was 8.3 trillion won (US\$7.8 billion).

Sales revenue was down by 0.14 percent from the third quarter's 59.8 trillion won (US\$56 billion), while operating profit was 18.31 percent lower than the previous quarter's record-setting 10.16 trillion won (US\$9.4 billion).

Compared to Q4 2012, when Samsung posted sales revenue of 56.1 trillion won (US\$52 billion) and operating profits of 8.8 trillion won (US\$8.2 billion), sales revenue was up by 5.2 percent, but operating profit was down by 6.1 percent.

However, Samsung Electronics' annual sales for 2013 was 228 trillion won (US\$213 billion), and operating profit was 36.77 trillion won (US\$34.4 billion), setting an all-time record.

Annual sales were up by 13.6 percent from the year before 201.1 trillion won (US\$188 billion), and annual operating profit rose by 26.4 percent, from 2012's 29 trillion won (US\$27 billion).

Industry experts expected Q3 earnings to drop to about 9 trillion won (US\$8.4 billion) due to the weak sales of smartphones, but the estimates released were far lower than expected, and as it turned out, were an "earnings shock," or a result that fares far below the estimated projections to cause market shock.

The announced estimates were about 12 percent lower than 9.4 trillion won (US\$8.8 billion). This was a result worse than the initial outlook forecast by twelve brokerage firms. The lowest estimates were 8.8 trillion won (US\$8.2 billion) by BNP Paribas Korea, and in the mid-8 trillion won range (US\$7.5 to US\$7.9 billion) by Credit Suisse.

Samsung Electronics last year climbed over the historical 10 trillion won (US\$9.4 billion) mark for the first time in Q3, and Q4 was expected to remain at that level, but towards the

end of 2013 the projection had slightly adjusted, due to changing market conditions.

The operating profit margin, which had been over 17 percent in Q3 2013, dropped to 14.1 percent in Q4.

Operating profit had been riding an all-time high from Q4 of 2011 to Q4 of 2012 for five consecutive quarters. But 1Q of 2013 saw a slight drop. Then Q2 and Q3 experienced a rebound and again record-breaking growth for two quarters. Q4 saw the growth stop, this time coming to a skidding halt.

Samsung Electronics plans to confirm the actual earnings for Q4 later this month. Considering that preliminary announced estimates are generally lower than actual earnings, it is expected that the fourth quarter's results will fare slightly better.

Falling exchange rates, bonuses paid out to its employees, plateauing market conditions for electronic products including cell phones, and the weak performance of LCDs were some of the factors that contributed to the earnings shock, industry sources pointed out.

The strong won, which was reflected in a 4 percent drop in exchange rate, contributed to unfavorable market conditions.

Samsung's smartphones continued growth, selling 390,000 units and taking 34.6 percent of the smartphone market, but the general trend reflected a tipping point, hinting slightly slowing sales.

Samsung Electronics had been flying high thanks to its core IT and mobile businesses. Positive results were expected in 2013 when the Galaxy Note 3 was released in September, but despite the holiday season rollout of TV and electronics products, the results turned out to be disappointing.

The performance of semiconductor chips was positive, as reflected in DRAM's steady price. Smartphones gave mixed results, as the slight growth of high-end phones showed signs of slowing down, but mid to low-end products showed steady sales.

There are mixed predictions for the coming 1Q 2014. While the slowed growth of smartphones in a traditionally

slow part of the year has naysayers casting doubts on 1Q, the upcoming Winter Olympics and newly-released tablet PCs - supposedly Samsung's next cash cow - have some onlookers believing that Samsung can gain a second wind. Since the opening trading day of the new year, Samsung Electronics shares dropped 6 percent, reflecting the fear of preliminary estimates, but after the announcement came out, bounced to a slight gain.

Market Cap Falls 13.6 Percent Year-on-year

Samsung Electronics' market capitalization dipped below 200 trillion won (US\$190 billion) again. Its stock price fell close to 9% in just five trading sessions since December 24 last year, due to concerns over its Q4 performance. Although not a few experts have a consensus that the drop is somewhat excessive, it is also said that it will take time for Samsung Electronics to achieve a turnaround.

On January 2, Samsung Electronics' share price fell 4.59% from the previous session to close at 1.309 million won (US\$1,246) and 9.28 trillion won (US\$8.8 billion) of market capitalization went up in smoke on that day alone. The drop amounts to 17.36% when compared to the previous high share price of 1.584 million won (US\$1,507), which was recorded on January 3, 2013, one year ago. The sudden drop can be attributed to a potential earnings shock in Q4, 2013.

In the third quarter of 2013, Samsung Electronics posted over 10 trillion won (US\$9.5 billion) in operating profits for the first time in its history. However, the amount for the following quarter is forecast to be between 9 trillion and 10 trillion won, or less than nine trillion as the case may be.

The problem is that it can last at least for a while. "The operating profits are expected to continue to decline to 8.7 trillion won in the first quarter of this year," said Hi Investment & Securities analyst Song Myeong-seop, adding, "Besides, the profits of the memory


semiconductor division, which was the only arm that recorded a significant increase in profits in Q4 last year, are predicted to decline, while the downward trend continues for the display division."

Earnings Shockwaves to Affiliates

Samsung Electronics' operating profits for the last quarter of 2013 are expected to have declined due to sluggish growth in the global smartphone market. Under the circumstances, companies supplying Samsung Electronics with handset components are predicted to take a hit as well.

For example, Samsung Electro-Mechanics' operating profit estimate for the same quarter has been halved in four months, signaling an earnings shock. At present, Samsung Electro-Mechanics is supplying more than 60% of its products to Samsung Electronics. Samsung Electro-Mechanics' stock price fell 4.8% between January 2 and 3 to close at below 70,000 won.

According to financial information provider FnGuide, the estimate made by local securities companies during the past month dropped to 80.1 billion won (US\$75 million) on average from 163.8 billion won (US\$154 million) in early September last year.

The slump of Samsung Electro-Mechanics is mainly because of the concerns over the performance of Samsung Electronics and its high dependence on the electronics manufacturer. 



Workers of Samsung Electro-Mechanics are checking the quality of PCBs in the process of production. The company is pursuing a growth strategy through making cutting-edge anchor products such as parts for smartphones.

Economic Outlook for 2014

Korea Expected to Post Higher Growth Rate This Year



■ Deputy Prime Minister and Minister of Strategy and Finance Hyeon Oh-seok

The Bank of Korea and major global investment banks estimated that Korea's economic growth rate for 2014 to be an average of 3.8%. The Korean government, in the meantime, has recently suggested a percentage of 3.9% in its economic outlook report published via the Ministry of Strategy and Finance.


The government's figure is 0.3 percentage points higher than the global economic growth forecast of the International Monetary Fund (IMF). It is the first time in four years that the Korean government's annual growth estimate is higher than the IMF's target for the global economy as a whole. The ministry predicted that both solid export and domestic growth will contribute to the country's economic situation this year.

The inflation is forecast to be around 2.3%, continuing a stable movement for three consecutive years. The employment is expected to increase by 450,000, which is 70,000 higher than last year's estimate. The government is considering that the number will be further increased once its five key plans for a 70% employment rate are kicked off in earnest. Still, economists are pointing out that it is the quality of the new jobs that matters.

The Ministry also announced that Korea's current account surplus would reach US\$49 billion in 2014, with the imports going up following the recovery of domestic consumption. The size of the surplus was US\$64.3 billion between January and November 2013.

"It seems that 3.8% growth is no tall order in view of the robust fundamentals of the Korean economy and the restoration





of the global economy as of late,” said Lee Boo-hyeong, senior research analyst at Hyundai Research Institute. He continued by saying, “What is important in this stage is mutual consensus and agreement among economic entities. That is, economic policy has to be established and implemented at a faster pace to give trust and meet the national growth goals.”

“The Korean economy will be able to show some gradual rebound in four years this year, but we cannot deny that it is in the face of a series of potential risk factors,” Samsung Economic Research Institute (SERI) head Jeong Ki-yeong explained during the presidential meeting of the Samsung Group. He advised, “Corporations need to overhaul themselves so as to better adapt to the low-growth environment which is characterized by the still weak resilience of the local private sector and the increasing uncertainties following the Fed’s tapering of quantitative easing.”


According to SERI, the most significant pending issues of the domestic economy can be summarized into the Fed’s tapering, slowdown of the growth of emerging markets, weakening growth momentum of Korea, slump in the local housing market, and increasingly adverse corporate financing conditions. “It is concerning that the slow recovery of the private sector could compromise the national economic growth momentum,” he continued.

The LG Economic Research Institute also published a report for this year, predicting that Korea’s export conditions will be improved, thanks to the rise of the consumption demand

in advanced economies along with the real national income benefiting from stable international petroleum prices. Nevertheless, it mentioned that the average annual growth rate of 4% is likely to be a hard goal to meet in the middle term.

The appreciation of the won has been picked out as the biggest threat to the recovery trend. At present, the Korean currency is appreciating at the most rapid pace worldwide to chip away at the competitiveness of local exporters. The decrease in exports caused by the drop in exchange rate is expected to amount to 3% this year.

The corporate sector is likely to record a capital expenditure growth rate higher than the estimated economic growth rate. According to Korea Finance Corporation data, many in the manufacturing, airline and telecoms industries and the like are planning to increase their investment this year. The corporation also mentioned some potential negative factors against such plans though.

“It is true that Korean companies’ profitability is on the rise along with the economic sentiment index, but, excluding leading big businesses such as Samsung Electronics, many of the others are still struggling, and the ESI has yet to get to the 100 mark,” researcher Lee Joo-wan at the Hana Institute of Finance explained. He continued, “In short, the overall Korean economy is likely to show better signs and indices in 2014, but the accomplishments will be led by the more successful industries, and companies will show a more stark performance divide than before.” 

Industrial Outlook for 2014

Semiconductors, Electronics, Automobiles, Petrochemical Sectors to Outshine Others

In 2014, the Korean economy is forecast to show a gradual recovery thanks to increasing exports, mainly led by the automobile and petrochemical sectors. However, the display industry is likely to face at least some challenges, as the global demand for, and price of, panels is on the decline.

The Ministry of Trade, Industry and Energy held this year's

first economic ministerial meeting on January 7 and announced its industrial outlook for 2014.

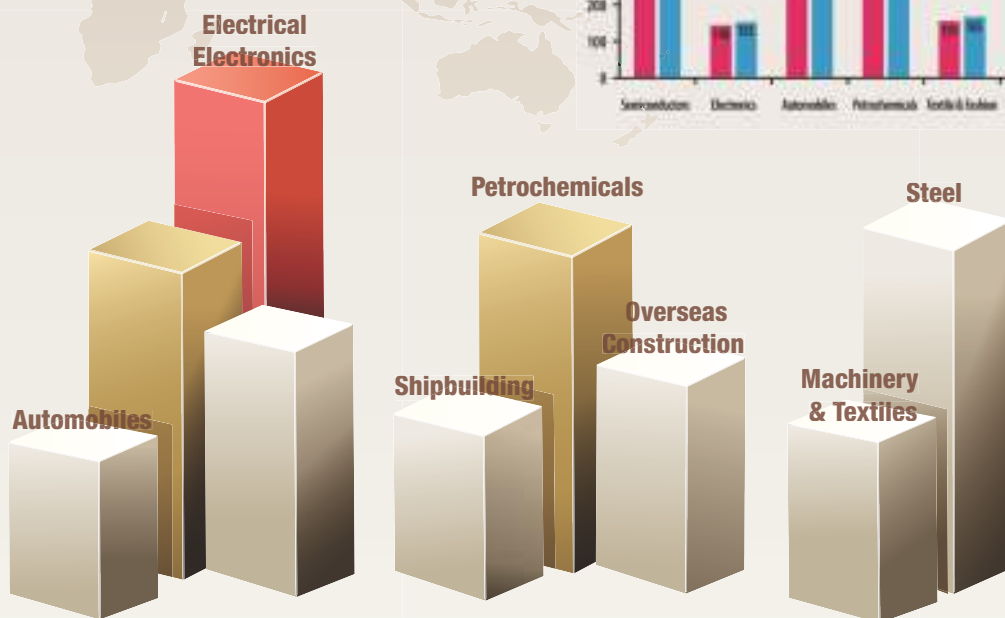
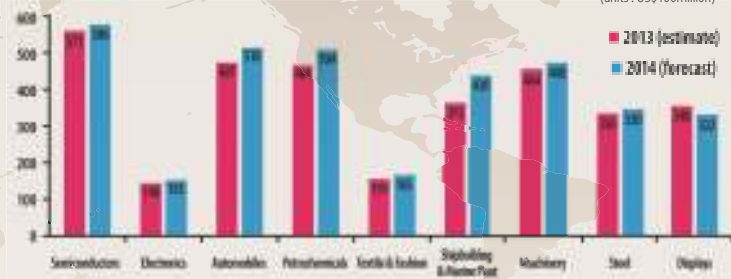
"The advanced economies are on a recovery track, and this will result in higher exports and production on the part of major industries such as semiconductors and automobiles," said Jeong Dae-jin, head of the Industrial Policy Division of the ministry, adding, "Still, the pace of recovery is likely to differ in various markets, depending on policy environments."

The shipbuilding, marine plant construction, machinery, and steel sectors are expected to have a better year in 2014. Things are predicted to be particularly favorable for machinery exporters and steelmakers, which suffered from a supply glut, weak yen, and economic recession in developed countries last year.

Under the circumstances, the government came up with generally positive forecasts, but it is also mulling over how to cope with the slumps of certain sectors. "The concerns over economic slowdowns in emerging countries and deflation in Europe, as well as uncertainties like the weak yen and tighter labor and environmental regulations are still lingering on, which means that we need to focus on investment attraction and the improvement of overall business environments," the director said, continuing with, "We are planning to move ahead with some microeconomic measures in certain industries so as to deal with pending difficulties."

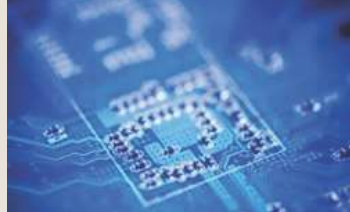
Export Forecast for 2014 by Industry (Source: Ministry of Trade, Industry, and Energy)

(units: US\$100million)



Electrical and Electronics

The information and communications industry is expected to continue its upward trend this year. Its positive factors include the expansion of the production of high value-added export items such as semiconductors, SSDs, and smartphones, the high LTE smartphone sales volume in emerging markets like China, and the rise in the price of semiconductor chips.



The display sector is likely to be revitalized to some extent thanks to the 2014 Brazil World Cup and the Sochi Winter Olympics. Nevertheless, a stark turnaround in terms of profitability is unlikely to be anticipated, as the global demand for high-end smartphones is in stagnation, which was recently evidenced by the Q4 2013 earnings of Samsung Electronics.

The semiconductor and consumer electronics industries are forecast to continue their growth, too. The export amount is estimated to increase by US\$500 million to US\$1.5 billion in the respective sectors.

Things are not entirely bright, though. One of the biggest threats is the fast growth of China. Chinese companies are rapidly increasing their share in the global smartphone, TV, and many more markets by capitalizing on their cost competitiveness. At the same time, the competition between Chinese manufacturers and Samsung Electronics is getting intense as China, which accounts for 28% of the global smartphone market, adopts LTE this year. Two of the other concerns are the drop in the average sales price of smartphones, and the consumer preferences that are changing faster than ever nowadays.

"The largest portion of the global smartphone demand is for mid-market and low-priced phones, and this signifies that things are becoming more and more advantageous for Chinese manufacturers," Hana Institute of Finance researcher Lee Joo-wan explained, adding, "Cost competitiveness is highly important in that consumers are in need of more high-performance LTE handsets and mid-end ones at the same time."

The display industry is predicted to have as harsh a year in 2014 as it did in 2013. "TV panel demand, which makes up 66% of the total LCD shipments, is in the doldrums, and the unit price will remain on a downward spiral throughout the year," E*Trade Securities Research Analyst Jeon Byeong-ki commented. Besides, Chinese display panel manufacturers are aggressively expanding their production facilities amid strengthening trade protection measures.

Automobiles

The government estimated the global automobile demand for this year at 90.34 million units, 4.8% up from last year. It also predicted that Korea's car exports will set a new record in 2014, as not a few consumers purchase new ones, and the Korea-EU FTA reduces the tariffs.



"Korean car makers are estimated to increase their annual exports by 4.7% from last year's US\$48.7 billion," said the ministry, continuing, "We will improve the related systems and regulations in order to facilitate the development of eco-friendly and self-driving vehicles and components and pose less of a burden on the manufacturers through negotiations among the authorities concerned."

The local auto industry enjoyed some positive effects from the cut in individual consumption taxes for cars with an engine displacement of 2,000 cc or higher. A variety of new models were released last year, too. However, the production and export sides were affected by the introduction of the double shift by Hyundai and Kia and the weekend strikes of its workers. The global market size is expected to be expanded along with clunker replacement demand this year.

Nonetheless, it is also true that Korean car makers are in the face of harsher conditions, that is, the domestic market is showing no signs of a lasting recession, and foreign car makers in the country are looking to move out. The labor issues including the ordinary wage and the weak yen cannot be neglected, either.

Experts are pointing out that the biggest problem is the decreasing demand for Korean cars both at home and abroad. "Korean auto manufacturers are getting more and more unsuccessful in the domestic market due to the increasing presence of imported cars," said Lee Hang-koo, director of the Korea Institute for Industrial Economic & Trade. He went on, "In the overseas markets, they are losing steam due to the appreciation of the Korean currency and the lack of new models."

The industry insiders' consensus is that more time will be taken until the makers come up with means to turn the tables. "The automobile industry of Korea enjoyed a higher international standing during the past couple of years thanks to higher quality standards mixed with their competitive edge in terms of price, but things are not rosy down the road," the director remarked. "Korean manufacturers would be well advised to focus more on R&D in the long term than on stopgap measures for the sake of profitability."

Petrochemicals

The petrochemical industry is predicted to show better signs than the previous year, amid stable global demand and petroleum prices. In addition, the Foreign Investment Promotion Act has passed the National Assembly and is expected to lead to more joint business opportunities with foreign companies. The Northeast Oil Hub Project is on the anvil, too.

Last year, the production facilities for base and intermediary materials such as toluene and paraxylene were expanded for higher output. The electronics, automobile and other related sectors grew to generate a larger demand too. The trends are forecast to continue across 2014.

Still, there is a possibility that the demand in China would be reduced significantly, as the country is raising the ratio of self-developed petrochemical products. "The oversupply in Northeast Asia and the shortage of demand in China could pose risks in the long term," Hyundai Research Institute warned. "At the same time, the competition is now more intense than ever because of the cheaper products supplied from the Middle East and Southeast Asia."

The oil refinery sector, in the meantime, seems to have a hard time getting out of a recession, although no structure change as in the recent economic crisis is in sight. China and Indonesia, two of the major export destinations, are increasing their refining capacity and self-supply ratio, while the falling demand for naphtha is exacerbating the margin of refineries. One of the few bright sides is that Korean companies are successfully opening up new markets abroad in the Middle East and Africa.

The risks associated with profitability are around as well. The exports of petroleum-based products, which exceeded those of semiconductors for the first time in 2012 to become the country's top export item, ranked second last year. Not a single one of the four major oil refinery companies in Korea posted an increase in sales between 2012 and 2013, due to declining exports.



Steel

Since the financial crisis in 2008, the steel industry has been mired in a long-lasting recession due to the surge in the won-dollar rate and declining global demand. POSCO has recently cut its production for the first time in four decades and Hyundai Steel has reduced its reinforcing bar output as well.

The supply glut has been exacerbated since that year to hinder the international price recovery. The outlook is not quite bright for this year, either. "The global steel market will keep suffering from oversupply throughout 2014 and thus Korean steelmakers will have to make inroads into overseas markets even more aggressively to offset their losses in Korea while trying hard for a sounder financial structure," SK Securities analyst Lee Won-jae advised.

Nonetheless, the government is anticipating that the global steel market will show signs of at least some improvement this year as the recession of 2013 was so severe. The base effect and the start of operation of new production facilities by POSCO, Hyundai Steel and many more are expected to result in increased output. Still, they are likely to have to wait for a while until any significant recovery in performance owing to the neck-and-neck competition brought out by the excess capacity.



Shipbuilding & Marine Plant Construction

The shipbuilding industry, which benefitted greatly from the higher exchange rate during the 2007 financial crisis, is now facing the risk of domino-type collapse as a series of shippers have cancelled their orders amid the global economic downturn. They are severely threatened by the decrease in orders, dropping shipping costs and less financial assistance.

"The amount of new orders is estimated to be 20% less than that of last year," said KDB Securities researcher Seong



Ki-jong, continuing, "The top three in Korea cannot but seek a breakthrough in the development of offshore plants and high added value vessels."

In 2013, they enjoyed better-than-expected business results thanks to a surge in the volume of orders and improved price indices. However, the recovery of the shipping industry is delayed at present and the number of new orders is going down in the offshore plant segment. Besides, the delay in the building of tailored marine vessels is likely to add to the trouble.

Meanwhile, the government is expecting that Korean shipbuilders will be able to come up with better results this year on the order obtainment and export sides alike because they are considered to be way more competitive than their rivals in the green ship, LNG carrier, marine plant sectors and the like.

Machinery & Textiles

The machinery industry had to go through a slump last year due to the weak yen and the plunge in the demand from the Middle East, although the issue of inventory accumulation in China was addressed well and the investment in the ASEAN region continued during the second half of 2013. In 2014, it is forecast to enjoy some increase in capital expenditure as the automobile and construction industries are looking upward.

The textile sector also had a relatively good year in 2013 as the exports to the ASEAN countries increased and the Korea-Turkey FTA became effective. Cotton manufacturers expanded their facilities to raise the cotton production, too. The same trends are anticipated this year with the growth of the Southeast Asian markets and the increase in the output of carbon fiber.



Transport & Logistics

The transport industry is predicted to remain sluggish, whether aviation, logistics and maritime transport. Hanjin Shipping and Hyundai Merchant Marine had to announce their self-help plans in the wake of the long-term recession and Korean Air ended up selling its shares in S-Oil because of a high debt ratio.



"The new year requires us to focus more on our fundamentals and further refine our risk management capabilities for greater chance of survival," Korea Shipowners' Association chairman Lee Yoon-jae emphasized, "We should get ourselves full ready to dominate new markets in advance."

The aviation industry of this year is characterized by a drop in the number of inbound tourists from Japan and China and freight volume, which prevailed during the course of 2013 as well. "The passenger and cargo demands are expected to show a gradual growth thanks to the recovery of the US economy and the international petroleum prices are likely to remain stable despite the geopolitical risks in the Middle East," the International Air Transport Association (IATA) mentioned recently.


Air Asia, the largest low-cost carrier in Southeast Asia, is looking to set up a subsidiary in Korea, making the seven national airline companies extremely nervous. The new entry, along with the ongoing recession, could result in a sizeable crisis in the aviation industry.

Overseas Construction

According to the International Contractors Association of Korea (ICAK), Korean builders are expected to win a total value of overseas construction orders of US\$72 billion this year to set a new record in four years by a margin of US\$400 million.



It is currently said that mega-scale orders are around the corner in the Middle East and North Africa and the value for January is estimated to exceed US\$7 billion sooner or later. More of such plant construction projects are waiting mainly in the Middle East from February, too.

"A number of large-scale petrochemical plant construction plants were temporarily halted in 2013 in the petroleum producing countries of the Middle East but are scheduled to resumed in earnest this year," said the Ministry of Land, Infrastructure and Transport. It continued, "In addition, more infrastructure and plant construction projects are expected to be underway in Asia, including Singapore, Vietnam and Malaysia, for Korean builders to further improve their performance." 

Financial Industry Outlook

Privatization and Restructuring to Be Accelerated in Stable Market Conditions



This year, the Korean financial market is expected to show relatively stable growth based on robust fundamentals, in spite of internal and external risks such as those brought about by the tapering of quantitative easing.

According to the financial industry outlook announced by the Financial Policy Bureau of the Financial Services Commission (FSC) on January 8, Korea is currently showing some external soundness in terms of net foreign credit, repayment capabilities, and foreign currency fund-related conditions on the part of banks.

Internally, the soundness of the household and corporate sectors is unlikely to deteriorate in the near future as well, with the domestic economy showing positive signs. Still, economists point out that companies in vulnerable sectors including shipping, construction, and shipbuilding need to be monitored on an ongoing basis, as the recession in these sectors is lingering.

“The financial authorities will keep a close eye on the situations, while adjusting policy directions through macroeconomic policy meetings or the like, so as to cope with market instabilities in advance,” said Kim Yong-beom, head of the bureau.

Low-income households are forecast to face ongoing dif-



difficulties in the local financial sector, and the polarization of the corporate bond market, which is exacerbated these days, is likely to pose a burden on the entire corporate financing market. In the household sector, low-income borrowers are predicted to witness a higher repayment burden in the event of rising interest rates, which could result in a decrease in consumption spending to slow down the economic recovery.

In the meantime, financing conditions are expected to be adverse at least to some extent for less successful companies, because investors are increasingly focusing on short-term, risk-free assets. If the global interest rate goes up, more and more marginal companies may become insolvent mainly in the vulnerable sectors.

Also, the financial industry as a whole is expected to enjoy improved conditions this year, thanks to the economic recovery, but the recent trends of worse profitability and soundness could continue for the time being. The United States and many other advanced economies are accelerating their restoration, and the Eurozone has entered a recovery phase as well. Meanwhile, emerging regions such as China are exposed to greater downward risks due to cyclical and structural reasons, and their growth is gradually losing steam. Their weak economic fundamentals and political uncertainties have caused global funds to veer toward developed countries, too.

During the course, global financial uncertainties are likely to deepen with the direction of international capital flow changed in the wake of the decreased liquidity following the Fed's tapering. "We need to be prepared for worse export conditions caused by the weak yen and the possibility of potential financial crises in emerging markets," the director explained, adding, "Also required is monitoring on whether or not foreign capital, which continued flowing into Korea throughout last year, will keep doing so this year."


Major Tasks for 2014

At the same time, the local financial industry is expected to concentrate on globalization and innovation through competition with privatization and restructuring going on.

The Korea Institute of Finance published a report on January 5, introducing the key trends and long-term tasks associated with the local banking sector, companies, and related policy. According to the report, the privatization of Woori Financial Holdings is likely to speed up structural changes in the banking and investment sectors, while the restructuring of regional banks lead to greater competition among major banks and regional financial institutions.

The investment sector is predicted to face more rapid reorganization as well, because of the shrinkage of brokerage services and the disposal of subsidiaries. Additionally, financial industry reform is expected to revolve around consumer-oriented regulations. More integrated financial services allowing for each individual's income, age, and family structure and combined with leisure, medical, and other non-financial needs are anticipated. Supervisory measures against consumer damage to and losses of financial consumers are to be shored up, too.

More efforts are required for business innovation and impact resistance. It is advised that financial companies make thorough preparations for corporate restructuring and proactive response to external conditions. For example, internal reserves should be beefed up along with a conservative stance on credit risks, while the ratio of the allowance for bad debts is stepped up.

Another consensus is that the leadership and public-centeredness have to be continued for a while in the field of policy financing. In this context, an increase in the financial demand of the working class, credit restoration of the marginalized class, and support for tech-oriented venture firms will have to be continued. 

Corporate New Year's Resolutions

Major Business Groups to Tackle Crises through Change, Qualitative Growth



Samsung Group

Samsung Group Chairman Lee Kun-hee asked his executive members to change the group once again, including business strategies, hardware processes, and corporate culture. The Chairman asked something similar 21 years ago. His remarks this time are to better cope

with the rapid change in the business environment as of late and ensure greater global competitiveness.

On January 2, the Samsung Group held a kick-off meeting for 2014 at the Shilla Hotel located in Jangchung-dong, Seoul. It was attended by the more than 1,800 top management members of the company.

"Last year, we had to struggle to compete with global leaders and deal with a series of patent lawsuits while the low growth trend continued to shrink our markets," he said, adding, "Nevertheless, we stepped up our investment and focused on technological development to further sharpen our competitive edge and come up with better business results." He continued, "However, during the 20 years of our New Management, some of the subsidiaries have topped the global markets, but the others could not, and the former are in the face of cut-throat competition while the time is ticking for the latter."

The Chairman went on to say, "This means that we have to renovate ourselves yet again, because the business models and strategies, hardware processes and corporate culture of five and 10 years ago do not work any longer. Let's get rid of old-fashioned ways of thinking, systems, and practices. We need to break technological and market limitations in order to take the initiative amid prevalent uncertainties. I would like to ask all of you to be more immersed in technological innovation, business structural innovation, and systemic innovation for us to remain a global leader preparing for the future."

He also mentioned that an economic recession brings more opportunities. "We need to create new technologies and new markets with a long-term view oriented toward industrial and technological convergence while keeping our rivals at bay," he added.

Hyundai Motor Group

Hyundai Motor Group Chairman Chung Mong-koo declared the preparation for future growth as his group's business goal for this year.

"In spite of the harsh business environment, we could accomplish a satisfactory result last year, but the competition is sure to be more intense this year as the low growth trend lingers on, and industrial changes based on technological convergence will lead to greater uncertainties," he said, adding, "We need to further enhance our strength across all fields to set the stage for future growth, while innovating our global management for a more efficient and dynamic organizational structure." The Chairman continued to emphasize, "At the same time, we will further systematize our long-term growth strategies and focus more on the development of innovative products and advanced technologies so as to create new growth engines."

He suggested the global sales volume goal of 7.86 million units for next year and asked all of his employees to do their utmost to achieve the goal with a new mindset and resolution.

The Chairman mentioned the significance of new growth opportunities in the steel and construction industries, too. "In the steel sector, we need to come up with even lighter yet more robust new materials such as high-strength steel sheets and special steel products so that our vehicles' quality can be enhanced. And, the construction business unit will have to develop innovative new methods and beef up its competitiveness in the environmental and energy sectors."



SK Group

The SK Group held a kick-off meeting on January 2 and expressed its commitment to reach 300 trillion won (US\$285 billion) in enterprise value this year. "Last year, we achieved business results



that were on the face comparable to the previous year's, but most of the subsidiaries had a sluggish year with the only exception of the semiconductor arm," said Kim Chang-keun, head of the SK SUPEX Committee. He continued, "Under the circumstances, each of them will have to shore up autonomous and responsible management to create greater values and reach 300 trillion won in enterprise value."



LG Group

LG Group Chairman Koo Bon-moo, in the meantime, asked his employees to accomplish more with market-leading products and accelerate the growth of new businesses to be the global number one.

LG Electronics Vice Chairman Koo Bon-joon echoed by saying, "This year is a critical juncture for us. We need to tide over the crisis and continue our growth by means of the maximization of structural efficiency, a stronger initiative, and our own way of working." LG Chem Vice Chairman Park Jin-soo added, "Let's offer our customers and clients with differentiated values based on advanced technology and perfect product quality, and continue leading the market."



Kumho Asiana Group

Kumho Asiana Chairman Park Sam-koo mentioned in his New Year's speech that the year of 2014 will be another takeoff for his group. "We will meet our sales and operating profit goals this year while renewing ourselves by completing the workout programs of major subsidiaries," he said.

The chairman continued, "If we are to completely transform ourselves, we will have to achieve the sales target of 12.15 trillion won and operating profit target of 710 billion won no matter what and we are positive about achieving the goals in that the global economy is showing signs of recovery and the Korean economy is expected to grow 3.7% this year."

He also expressed a strong will to normalize the business of Kumho Tires and Kumho Industrial, two of its major subsidiaries currently in workout processes.



Doosan Group

In the meantime, Doosan Group Chairman Park Yong-man emphasized during his New Year's address that his group needs to be systematically prepared for the

global economic recovery on the horizon.

"The recovery itself will not bring fruit to us but the ones better prepared will be able to enjoy more opportunities in the market," he remarked, adding, "The time is against us and we have to further accelerate our pursuit to remain in the top tier, which requires us to look back upon our ways of working, product quality and technological standards to wrap up any necessary preparations before the end of this year."

GS Group

Chairman Heo Chang-soo of the GS Group stressed the importance of the preparation for future growth through corporate innovation. "We have been engaged in various activities to be resistant to harsh global business conditions and achieved significant quantitative growth," he said, continuing, "We have ensured new growth drivers by deciding to acquire STX Energy and so on, and now all of the subsidiaries in the group will create synergy through organic cooperation."



Hanjin Group

Hanjin Group Chairman Jo Yang-ho suggested "one mind" as his key words for this year. "Let's stick together and arm ourselves with one mind to tackle the current crisis," he said. Hanjin Shipping Chairman Choi Eun-yeong added, "Last year, we could get over the liquidity crisis and bring our business back to normal by dint of multifaceted self-help plans and financial support. We cannot deny that the long-lasting recession has weakened our fundamentals at least to some extent, but we, as a team, will turn the crisis into an opportunity this year."



POSCO Group

POSCO Chairman Chung Joon-yeong delivered his New Year's address on that day, too. "This year, we will concentrate on business that guarantees higher profitability, while making more efforts to manage global business risks, promoting the growth of our core businesses and redoubling our soft competitiveness in step with the opening of the era of the creative economy," he mentioned. **BR**



Interview with KOICA President

Sharing the Secret of the Miracle on the Han



BusinessKorea was able to recently meet and talk with President Kim Young-mok of the Korea International Cooperation Agency (KOICA). We spoke about the role of his government agency in creating cooperative overseas aid initiatives and spreading the Saemaeul movement abroad. Excerpts from the interview follow.

Would you briefly introduce the history of the KOICA?

In charge of the official development aid programs of the Korean government, the KOICA was established in 1991 in order to promote the bilateral cooperation and mutual exchange between Korea and developing nations and help their economic and social development.

At that time, the size of grant-type aid provided by Korea stood at just approximately 17.3 billion won (US\$16.1 million) per year, but it has grown rapidly to about US\$1.5 billion now. The KOICA is currently executing US\$600 million or so of it.

The total aid reached 34,924 won on a per-capita basis as of 2012, which was increased by 5,460 won from the previous year. However, Korea recorded 0.16% in terms of the ODA-GNI ratio, which shows the level of ODA vis-à-vis the economic scale of a country, and this figure is much lower than the OECD DAC member countries' average at 0.31%. The United States, Britain, Germany, France, and Japan are on the top five list.

What are the agency's ODA strategies and accomplishments up to now?

The KOICA is currently spending US\$445.27 million of our budget on 14 organizations in 121 countries around the world. 70% of it is executed in 26 key target countries, to enhance the efficiency of the aid. By region, 67% of the budget goes to Asia, where the segment of poor population is the highest, and Africa, home to the largest number of the world's poorest nations.

The largest portion of the budget is spent on the education field, followed by healthcare, public administration, industry, and energy. The budget execution is focused on the regions included in the Millennium Development Goals of the UN, and where the demand for aid is higher.

Project-based programs account for 48% of the budget in which material and human resources are offered in a comprehensive manner based on beneficiary-specific cooperation strategies. The dispatch of volunteer groups and invitation of

vocational trainees take up 17.7% and 9.9% of it, too.

Such efforts of the KOICA have been appreciated greatly by the OECD DAC member nations such as Portugal, Japan, France, and Germany as well as DAC Chairman Brian Atwood. Korea's global leadership in the field of international ODA is regarded as a role model for other countries.

What are some examples of the major projects?

The KOICA has been engaged in various types of ODA projects in order to assist in the economic and social development of less-developed nations. The examples include support projects for building schools, hospitals, and vocational training centers, and for providing design assistance during the construction of social overhead capital like airports, ports, dams, and road networks.

In addition, the agency has been committed to the training of public employees from developing countries and sharing of development experiences, the dispatch of volunteer corps staffed with young participants, emergency aid and restoration projects underway in the event of disasters, private-public cooperation programs in conjunction with NGOs in Korea, and ODA manpower training projects in tandem with international cooperation centers.

Also, the KOICA has launched global Saemaeul campaigns, making use of information and mobile technologies to spread the noble values of agricultural development, respect for women, protection of children, and education for a greater number of people the world over. Specific platforms have been established for tailored support, and the programs led by a variety of organizations have been integrated with one another in a systematic manner to achieve higher project efficiency and set the stage for the growth of less-developed nations.

How has the KOICA worked together with its counterparts abroad?

The KOICA is emerging as one of leading international aid providers through MOUs and agreements for seamless exchange with agencies in both developed and developing countries and international organizations such as the United Nations.

For instance, it has concluded MOUs for joint projects with USAID of the United States, JICA of Japan, GIZ of Germany, CIDA of Canada, AFD of France, AECID of Spain, and many more. At the same time, similar agreements have been signed



▶ Kim Young-mok, president of the Korea International Cooperation Agency

with the AGCI of Chile, ABC of Brazil, and TICA of Turkey. More recently, it signed MOUs with the TICA of Thailand and AMEXCID of Mexico.

The KOICA is also intending to expand the scope of its cooperation with the UNDP, WFP, UNFPA, and other organizations of the UN, and is planning to work together with renowned and capable entities and foundations in the private sector.

Such endeavors have resulted in successful joint programs with the USAID, Peace Corps, and the like. The KOICA will launch another cooperation project in November with the JICA as well.

What are the agency's key projects for this year, and how is its innovation going on to this end?

One of the most important ones for this year is the Global Young Talent Program, in which more than 28,000 people will be given access to development cooperation education and hands-on experience for five years to come. In detail, the purpose of the program is to nurture World Friends Korea (WFK) Project managers, experts of international Saemaeul programs, young ODA interneers, and those participating in such programs in partnership with colleges.

Plus, the best Saemaeul practices will be further spread into the international community. In this context, strategic targets will be selected for concentrated investment, action plans will be set up to suit the needs of the beneficiaries, and academic seminars will be held so that its philosophy and value can be shared with the entire world.

The systemic cooperation and partnership with international organizations and aid-providing bodies in developing and developed nations will be shored up, too. More ODAs utilizing Korea's advanced scientific technologies and development experiences will be offered along with those in the fields of culture and art so the people in less-developed regions can enjoy higher living standards.


We are also planning to renovate our systems, including those associated with procurement, software, and consulting, in order to help small and mid-size enterprises (SMEs) to find their way into such regions with greater ease. I would like to stress that SMEs constitute an important pillar of the creative economy, and the KOICA will ensure their greater participation in its programs and projects.

In 2014, its evaluation and assessment systems will be made better for more effective and advanced appraisal of the quality of ODA projects. In this vein, the agency will step up the quality management side, focusing on the accountability and learning aspects of the programs, while setting up new criteria which can fit international standards and be shared with overseas entities.

The KOICA will strive harder for greater structural transparency as well. It will make more of its information and data public, join the efforts of the international community for more transparent aid, come up with objective results of aid projects and programs, and handle them with greater efficiency to this end.

Please give an explanation on the future development plan and vision of your organization.

Our vision is to develop the KOICA into a global ODA leader complying with global standards. This can be achieved by enhancing the competitiveness of the private sector and promoting the partnership and cooperation between the private and public sectors and among the KOICA, enterprises, and NGOs. In the long term, we are also planning to increase the ratio of ODAs and procure the required budgetary resources.

The KOICA will turn itself into a textbook example of an ODA provider across the world by means of more professional projects and programs, higher awareness of ODA, greater participation in various activities, and the promotion of education, publicity and research for the expansion of ODA infrastructure worldwide. 



KOICA, Leading Aid Provider of Korea

Striving to Boost Effect of International Aid by Seeking Optimal Combination of Development Grants

Since its inception in 1991, the Korea International Cooperation Agency (KOICA) has striven to assist in the social and economic development of less-developed countries by means of programs suiting the needs of the beneficiaries. Specific examples include region-specific cooperation projects, the World Friends Korea (WFK) program, global training sessions in the framework of international cooperation organizations, private-public collaboration, and projects to fight climate change and provide emergency aid abroad.

It has launched 685 projects worth a total of US\$1.4 billion altogether in 80 countries during the past 22 years, while sending 22,091 volunteer WFK workers to 67 countries. As of the end of 2013, 1,745 WFK workers were volunteering in 46 countries. Also, it has invited a total of 49,020 public employees from 142 developing nations (4,699 from 110 countries as of 2012) and worked together with 47 international organizations.

Country-specific projects account for 41.7% of the total and are followed by volunteer corps dispatches, which take up 14.3%.

As of 2012, the international official development aid (ODA) market is 130 trillion won (US\$120 billion) in size. The Korean government's ODA budget reached 2.1 trillion won (US\$1.94 billion) in 2013, and 540 billion won (US\$500 million) worth of grants in the ODA budget was allocated to the KOICA in that year.

In the meantime, its ODA-to-GNI ratio is estimated at 0.16% in 2014. Under the circumstances, the government's goal to raise the percentage to 0.25% by 2015 is becoming less likely to be met.

"The year of 2014 will be the first year when the significantly-increased ODA budget will be reflected in earnest in the agency's budget, despite harsh economic conditions and the decrease in tax revenue," said President Kim Young-mok of the KOICA. He continued, "The high interest in Korea's role both at home and abroad requires us to be a more transparent, efficient, and dedicated organization."

He continued to emphasize, "It is also demanded that the government's ODA structures be integrated systematically, though we cannot be sure about when it will be achieved, and the KOICA has to ensure outstanding capabilities in terms of integrity, creativity, efficiency, effectiveness, data production



and management, geopolitical professionalism, and the like, if it is to become the linchpin in this trend."

The agency announced on January 22 that it will be committed to systemic and business innovation during the course of 2014. It has expressed a strong will to become an entity that spends taxpayers' valuable money for development aid purposes in a transparent and meaningful way.

It cannot be denied that the KOICA used to move ahead with ODA projects somewhat haphazardly and waste precious financial resources, in spite of the increasing importance of such projects and higher international standing of Korea. Some people are still criticizing that the pre- and post-management of the projects are improper, compromising the prestige of the country in the international community.

This is why the KOICA is planning to concentrate on the improvement of its aid procurement systems, personnel management structure, organizational transparency, and provision of data for all this year. It is intending to establish more beneficiary-oriented human, material, and systemic infrastructure, while enhancing its aid procurement capabilities so that its development aid services can become even better in quality and equality alike. The personnel management systems are scheduled to be overhauled for more productive, efficient, and professional services, and an integrated ODA information center will be set up to contribute to the international community's aid transparency, and comply with the demand for public informa-

tion disclosure.

The KOICA is going to work to expand its budget while increasing the ratio of grant-type and untied aid in the long term. It will take the lead in the implementation of the Busan Global Partnership for more effective aid, and shore up its international partnership to work more closely with advanced and emerging economies. The private-public partnership is enhanced as well for the same purpose.

The KOICA is currently making use of Saemaeul as an ODA brand and spreading the best practices of the global Saemaeul ODA programs based on its accomplishments in beneficiary countries. Adopted to this end are methods such as the

ahead with 61 development consulting projects in 27 countries in 2014, at a combined cost of 39.9 billion won (US\$36.9 million). The government is working on its own development consulting promotion plans, too.

Greater synergy effects are also anticipated in conjunction with credit assistance programs as well. Last year, the KOICA announced a plan with the Export-Import Bank of Korea to more closely link credit assistance and grant-type aid programs. The bank provides Economic Development Cooperation Funds (EDCF), as the KOICA handles grant-type aid.

According to the plan, the two organizations will work together down the road to find more aid opportunities in devel-



strategic selection of target nations and concentrated investment, establishment of tailored action plans, training of Saemaeul experts, and promotion of the philosophy and value by means of international seminars.


In addition, programs demanded by beneficiaries will be fast-tracked for emergency relief abroad, assistance in Korean companies' overseas market penetration, and the follow-ups of summit and diplomatic talks. This is expected to result in greater effectiveness of aid projects and the maximization of reciprocal interests of both Korea and the beneficiaries.

The Ministry of Foreign Affairs and the KOICA have participated in a large number of international grant aid projects in a variety of fields such as medical and healthcare, education, agricultural development, infrastructure development, and information and communication technology. In doing so, they have accumulated on-site experience in developing nations and established worldwide networks, which will be a boon to the market penetration of small and medium-sized Korean enterprises, too.

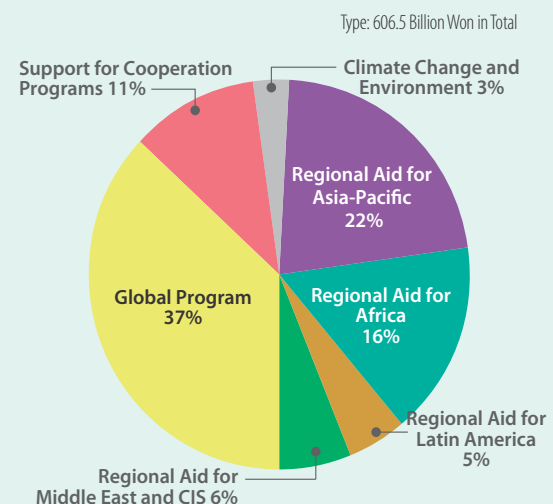
In particular, the global demand for ODA infrastructure construction is expected to surge this year, and the agency is mulling over how to promote the participation of small, local firms in bidding for aid projects.

Plus, the agency is going to provide more support on the development consulting side so that the companies can enjoy some advantage in follow-up projects. It is planning to move

oping nations in the framework of integrated country-specific strategies, which will be set up by both sides. International demand will be surveyed based on cooperation from the very first planning stages, and the optimal ratio between credit assistance and grant-type aid will be sought for the maximization of aid effects.

Trainees visited by the KOICA are singing in chorus at the 3rd Global Cultural Festival held at the agency's headquarters on November 2, 2013. 

< 2014 Budget Allocation by Project and Program >



Korean Agency for Technology and Standards

Augmenting Added Value by Strengthening Industrial Standards



Seong Si-heon
administrator of the KATS



The Korean Agency for Technology and Standards (KATS) was reorganized last year to play a role in covering a wide range of national standards as a control tower for national standards management. To meet internal and external demands and challenges, KATS also established a new bureau to respond properly to technical barriers for international trade. In addition, KATS is converting supplier-centered standards into group standards, allowing for market demand. All of these innovative efforts have been made under the leadership of Seong Si-heon, administrator of the KATS. BusinessKorea had an opportunity to talk with him about his changed role and its business plan for this year. The following are excerpts from the interview with him.

You reorganized and renamed KATS in December last year, about eight months after you took office. Please give some detailed information about the new structure.

KATS was reorganized in December 12, 2013 in order to strengthen the role of industrial standards, which are one of the key drivers of economic and corporate growth, and to augment their economic added value.

The idea of the change in designation is to correspond to the requirement of controlling and managing consistency, both among the national standards and the standards policies among ministries, so that a pan-governmental national standards management system can work. At the same time, we established a new Bureau of Knowledge Industry Standards to cope with

technical regulations, tackle international trade and technical barriers, and improve unfair government regulations in industries.

In the Bureau, a new division was set up to listen to the voice of industrial participants and handle the negotiations and implementations associated with free trade agreements. In addition, another new division is in charge of evaluating technical regulation impacts and preventing redundant restrictions hampering the growth of corporate competitiveness. There is also a division to provide domestic and foreign standards and certification information while offering Korea's testing and certification systems for major export destinations.

What is KATS doing to improve the national standards management system?

KATS has re-organized the Korean Industrial Standards (KS) to better reflect the current market demand and technological development, and moved ahead with a new standards development system to match the KS with those of each division.

First, we are converting supplier-centered product standards into group standards, allowing for market demand while managing the KS, based on legal certifications and government procurement. The KS with lower utilization are going to be repealed down the road, and those effective for the protection of consumer safety and required for compliance with international standards will be updated, too.

The standards that prevent the introduction of new technol-

ogy by limiting industrial methods and materials or requiring excessive facilities will be revised into performance-based standards so that companies can feel less burden than before. The KS renovation process is scheduled to be completed in 2014.

Also, the standards enactment and revision procedure will be improved so that the authorities concerned can themselves work on and manage standardization plans, although all of the processes related to the KS have been handled by KATS until now. Plus, KATS is currently trying to match the KS with 800 or so technical standards for industrial products such as TVs, refrigerators, and furniture.

What is your evaluation of Korea's testing, certification, and management systems in the global arena?

We cannot deny that Korean testing and certification agencies have a far way to go in terms of brand power, service diversity, and the like when compared to their counterparts in advanced countries such as BV of France, SGS of Switzerland, and Intertek of the UK.

At present, the Korean agencies' capabilities are considered to be around 65.4% of those agencies of global leaders. In particular, the service expansion capabilities and the testing and certification standardization capabilities are just 46.9% and 53.6% of those of the global leading institutes.

Still, Korea is the world's eighth largest trade country and owns huge testing and certification demand, along with well-trained experts, speedy yet inexpensive services, a high level of digitalization, and the ability to respond fast to market changes. We are expecting that our testing and certification sector will grow into a high-value-added industry in the near future through concentrated efforts.

What certification systems are available in Korea and what is their effect on export activities? How is the international exchange going on in this regard?

The Korea Laboratory Accreditation Scheme (KOLAS), the Korea Accreditation System (KAS), and the Korea Accreditation Board (KAB) are some of the examples, all of which have been officially acknowledged by the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC).

Up to this moment, approximately 700 testing and certification organizations have obtained acknowledgements, and the test reports and certificates issued by them are in use in the 66 member countries of the international bodies, contributing to the business activities of local exporters.

When it comes to the export of testing and certification systems, KATS has continued its talks with the Saudi Standards, Metrology and Quality Organization (SASO) since 2011, so that the Korea Testing Laboratory and the SASO signed an agreement for an air conditioner energy efficiency testing agency on November 5. The institute will not just set up testing equipment, but also transfer our software-side expertise such as testing techniques. It is very meaningful as the first case of

overseas market penetration by a Korean testing agency.

The ISO General Assembly for 2015 is planned to be held in Korea. What is the meaning of playing host to it and its anticipated effects?

The ISO is one of the two pillars of the global standards industry, along with the IEC. The General Assembly in 2015 is expected to be a huge motivator for Korea to increase its international standing in this field.

The General Assembly is attended by over 700 people from 164 countries across the world and manages the international standards of 233 industrial segments. Greater participation will be made on the part of local industries, and domestic technologies will be reflected in international standards, which will be a boon to Korean companies' overseas market penetration and export.


What is Korea's international standing in the global arena in terms of the number of international standards adopted?

Korea has been engaged in international standardization activities since the early 2000s. During the short span of time of 10 or so years, the country has achieved significant growth in the ISO and the IEC alike, both qualitatively and quantitatively. For instance, Korea ranks 9th and 12th in the ISO and the IEC, respectively.

The number of international standards suggested by Korea jumped 24-fold from 24 to 561 between 2002 and 2013. Also, the country, a leader of the global Information and Communications Technology (ICT) industry, is the fourth-largest in terms of the number of suggested standards following Japan, Germany, and the United States. In addition, it ranks 11th and 8th in the number of executive members in the ISO and the IEC each.

What will be the tasks necessary for Korea to become a standardization powerhouse, and what is your blueprint in this vein?

It is said that the one who controls standards dominates the global economy, which shows the importance of the economic value of standards. I believe that Korea needs to turn itself into a leading international standards manager to be on par with its technological, economic, and industrial growth. KATS will be engaged in more strategic activities in international standardization and the ISO general meeting in 2015 and the IEC general meeting in 2018 will help take it to the leading position worldwide.

At the same time, we will continue to strive so that national R&D projects can lead to international standards. We will focus our resources on the fields with a greater impact in the export market and a higher proportion in the domestic industries, while providing more support for exporters through international standardization. Also, we are expecting that more Korean executive members will do their part in the international standardization organizations, providing more and more assistance in Korea's standardization activities around the world. 

Three Year Plan

Park Geun-hye Takes Initiative on All Economic Fronts

President Park Geun-hye has just laid out her three year plan in detail with the formation of a Task Force involving the Ministry of Strategy and Finance. Under the plan, a focus has been placed on strengthening and enacting executive power, with the definite goal of realizing policy goals.

With Finance Minister meetings acting as a central committee, the First Deputy Minister of Strategy and Finance has been put in charge of operating a task force team. A Regulatory Reform Committee of finance ministers has been created to tackle complex issues, interweaving various interest groups as well. The committee will

serve directly under President Park.

Another joint task force will be formed with all related government departments involved, to serve as a one-stop solution portal, expediting issues such as the certification and investment in five promising areas, including health care and education.

Extensive cooperation between private and public sectors are planned, with public organizations expected to lead many initiatives.

Vice Minister Hyun Oh-seok said, "The aim is to find structural problems and systematically improve our economy by taking initiatives on all fronts."

By



Presidential Address

Sound of One Hand Clapping Echoes as President Park Delivers Address

President Park Geun-hye made her new year's speech, but only the sound of one hand clapping was heard, as the opposition remained uninterested.

The ruling Saenuri party and opposition offered differing views on President Park Geun-hye's new year news conference.

The Saenuri party praised the President's philosophy on the administration of state affairs, and her efforts to connect with the people.

The ruling party gave a thumbs up on the President's policy proposals for a three-year economic plan, the restructuring of the public business sector,

and the resumption of family reunions between the two Koreas. The party also called for bipartisan efforts in support of the government's plans, saying that the opposition's cooperation was important.

Saenuri party spokesman Yoo Il-ho said, "Running state affairs is like a three legged-race. The opposition must understand that all parties are responsible in serving the public interest. We ask for their active involvement and cooperation."

But the opposition downplayed the President's speech, dismissing the event as mere posturing, self-promotion lack-

ing substance. The democratic party criticized that the President evaded key issues such as legislative reform and the controversies surrounding the 2012 presidential election.

Opposition party spokesman Kim Kwan-young said, "People want communication that is straightforward and honest. Today's news conference was like a script, a carefully-staged act of self-promotion."

Ahn Chul-soo and his "new politics" committee voiced its criticism of the speech as well, claiming that the President failed to address the public welfare and economic democracy. By

Revised Foreign Investment Promotion Act

Paraxylene Production by SK and GS Expected to Speed Up



■ The expansion of the production of paraxylene by the SK and GS Groups is expected to be accelerated thanks to the revised Foreign Investment Promotion Act.

Due to the revised Foreign Investment Promotion Act, SK Chem and GS Caltex will receive investment worth 480 billion won (US\$445 million) and 500 billion won (US\$464 million), respectively, from their Japanese partners.

The expansion of the production of paraxylene by the SK and GS Groups is expected to be accelerated thanks to the revised Foreign Investment Promotion Act that passed the National Assembly on January 1. The global demand for the chemical substance is forecast to increase approximately 7% each year in the near future.


The SK Group's sub-subsidiary company SK Chem and the GS Group's GS Caltex signed MOUs with JX Energy, Showa Shell, and Taiyo Oil of Japan in 2011 and 2012 to dominate the market in advance. However, they could not complete the construction of the plants due to the delay in the passing of the revised bill, which is expected to result in new investments of over two trillion won (US\$1.9 billion).

SK Chem, which is a subsidiary of SK Innovation, is already building production facilities with an annual capacity of one million tons. The facilities are scheduled to be completed in the first half of this year, when SK and JX Energy will kick off their joint business in earnest at a total investment of 960 billion won (US\$913 million). About 50% of the invest-

ment will be borne by the Japanese company.

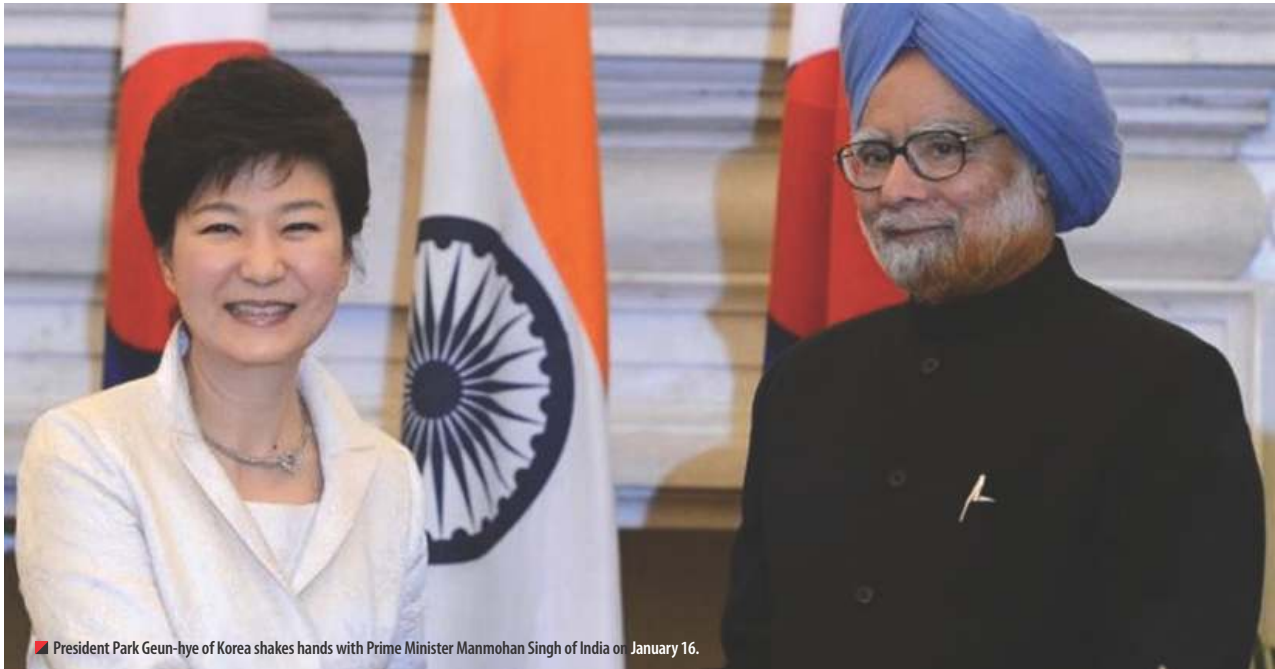
GS Caltex is going to expand the annual capacity of its paraxylene production plant located in Yeosu City, South Jeolla Province to one million tons, as well. The total investment is one trillion won (US\$9.5 billion), 500 billion won (US\$476 million) of which comes from by Showa Shell and Taiyo Oil, which is expected to be a boon to the current sluggish performance of the local petrochemical sector. Once completed, the plant of GS Caltex is the largest factory of its kind in Korea.

As stated above, the global demand for paraxylene is predicted to grow 7% a year. Chinese chemical companies are increasing their production capacity in this context. According to industry sources, China is likely to be able to supply 100% of its own demand for paraxylene by 2020.

The Foreign Investment Promotion Act was revised at this time so as to further facilitate large-scale corporate investment activities. According to the revision, a subsidiary company's shareholding limit in a sub-subsidiary company is set to 50% when a local corporation and a foreign company set up a joint venture so that the Fair Trade Act regulations can be circumvented. The idea is to allow up to 50% of the investment to be made by the foreign company so that big businesses can have a lighter burden in large-scale investment. 

Korea-India Summit

Park Geun-hye, Manmohan Singh Agree to Additional National Cooperation



President Park Geun-hye of Korea shakes hands with Prime Minister Manmohan Singh of India on January 16.

President Park Geun-hye, who is currently on a four-day visit to India, had a summit meeting with India's Prime Minister Manmohan Singh on January 16. The two leaders reached agreements to further bolster bilateral trade and investment, enact legislation exempting Korean businesses from double taxation, cooperate in key science and technology areas including Information and Communication Technology, and to expedite the construction of POSCO's steel mill.


The two leaders agreed to work on upgrading their Comprehensive Economic Partnership Agreement (CEPA), with the aim of reaching US\$200 billion in trade volume. Both countries have agreed on bolstering the CEPA, which has been relatively lightly regarded, in order to further promote commercial service and trade investments.

The Indian government has claimed in the past that the Korea-India CEPA is one-sided, favoring Korea. Thus it has been reluctant to follow up on it. But these bilateral talks have led to the conclusion that in spite of the trade deficit, it is in India's best interest to upgrade the CEPA, which will increase trade volume, than to pursue a full-scale free trade agreement. As such, India and Korea will hold bilateral trade minister talks to discuss the road map towards enhancing the CEPA in the future.

To bolster investment and cooperation between the pri-

vate sectors of both countries, a cooperation committee of vice ministers has been renamed the trade and investment promotion committee. In addition, the business corporation network called the CEO network forum has been formed that will invite twenty CEOs from both countries to a round table of talks, to spur cross-country trade and investment. A Memorandum of Understanding for financial support has been signed to further Korean companies' involvement in laying down infrastructure in various areas of India. Finally, an industrial and academic-specific MOU between India's Department of Science and Technology and Korea was also signed to enhance the co-operative commercialization of Korean technologies.

Both countries agreed to form a strategic alliance to combine India's strengths in Information Technology and Korea's strengths in hardware and commercialization. Also, expedition for the construction of a Korean manufacturing facility in Rajasthan has been agreed, which will allow small and medium-sized Korean businesses easy entry into India.

The two countries also signed an MOU between the Export-Import Bank of Korea and the India Infrastructure Finance Company Ltd., and decided to allow SBI, India's largest public commercial bank, a credit line of up to US\$200 million, to serve as financial support for Korean companies entering the Indian market. 

Abe's Provocation

Abe's Yasukuni Visit Worsens Relations with Neighbors in Northeastern Asia



■ Abe's visit to the controversial Yasukuni war shrine has worsened its relations with Seoul and Beijing.

On December 26, Japanese Prime Minister Shinzo Abe visited the controversial Yasukuni War Shrine that honors Japan's war dead, including World War II Class A criminals, signaling huge diplomatic repercussions.

Celebrating the first anniversary of Abe's taking office, the visit to the shrine was the first by a Japanese prime minister since former Prime Minister Junichiro Koizumi in 2006.

Abe said to reporters, "I have no intention at all to hurt the feelings of the Chinese or the Korean people."

Abe's visit to the shrine has triggered strong reactions from Korea and China, which see the shrine as a symbol of Japanese wartime atrocities. Seoul and Beijing have continued to call on the Abe administration to face up to and reflect on its history of aggression.

In particular, Abe's visit is escalating already-high tensions between Seoul and Tokyo. The relations between the two had already been strained following Tokyo's continued territorial claims to Korea's easternmost islets of Dokdo.

The two countries were reportedly in discussion over a plan to hold vice foreign ministerial talks in an effort to arrange a summit between their state leaders.

The Korean government convened an emergency meeting on the same day to discuss a response. Lodging a protest, Vice Foreign Minister Kim Kyou-hyun summoned the deputy chief of the Japanese Embassy in Seoul, Takashi Kurai. Further, the government is considering summoning the ambassador in Tokyo as well.

Chinese foreign minister Wang Yi also lashed out at Abe, saying that Abe's visit to the Yasukuni Shrine has infuriated both Seoul and Beijing, and taken Tokyo in a "dangerous direction."

Wang on December 26 summoned the Japanese ambassador in Beijing, Masato Kitera, and lodged a "strong protest" against Abe's visit to the shrine.

Wang said there, "The visit is not only a flagrant provocation of international justice, but also grossly tramples on human conscience," adding, "Les-

sons from history must be learned. The international community, including China, must heighten its vigilance and never allow the clock of history to be turned back." **BK**

Echolucent Hope

Japanese Prime Minister Hoping for Summit Talks with Korea and China

Japanese Prime Minister Shinzo Abe said on January 6 that Korea, Japan, and China need to have a heart-to-heart talk to deal with the strained diplomatic relations among themselves as of late.

On that day, he visited the Ise Shrine located in Mie Prefecture as his first official activity for this year, and then had a press conference there, adding that the three-way talks are important for regional peace and stability in Northeast Asia.

He also mentioned that no summit talks with Korea and China appear to be on the horizon for now. The remark seems to have to do with his visit to the Yasukuni Shrine on December 26 last year. "I would like to make an explanation with sincerity to China and Korea as to my visit to the shrine and the constitutional amendment issue," he clarified. **BK**



Revival of Fast Track

US Pushing Reinstatement of Trade Promotion Authority

A bill to reinstate the Trade Promotion Authority (TPA), also called the fast track negotiating authority of the President of the United States, has been submitted to Capitol Hill. The TPA will prevent its trade partners from tampering with the foreign exchange rate in the framework of the free trade agreements (FTAs) currently under negotiation, including the Trans-Pacific Partnership (TPP).

According to foreign news agencies, Democrat Max Baucus (Montana) and Republican Orrin Hatch (Utah) on the Senate Finance Committee and Republican Dave Camp (Michigan), chairman of the House Ways and Means Committee, submitted the bill to the White House on January 9 (local time).

The bill includes stipulations about the reinstatement of the TPA, protection of labor, environment, and intellec-

tual property rights, and prohibition of exchange rate manipulation on the part of trade partner countries.

The TPA, in short, is about Congress entrusting the President with full power over trade talks, so that the negotiations can proceed without unnecessary delays. The results of the talks cannot be modified, and Congress is allowed to only approve or refuse the results by voting. The idea is to alleviate the concerns that inter-country agreements could be

changed during ratification in the US Congress.

The TPA, which incidentally was used with the KORUS FTA, expired in late 2007. Since then, President Barack Obama has demanded that Congress reinstate the TPA so as to expedite the settlement of the TPP and the FTA between the US and the EU.

Still, it is not certain whether or not the bill will be passed, because labor unions and environmental protection groups are opposed to the FTAs ahead of the off-year election scheduled for November. Even some in Capitol Hill are against the reinstatement of the TPA, demanding that their political circles be in full control of all negotiation processes and details. ^{BK}



■ A bill to reinstate the Trade Promotion Authority was submitted to the White House by leaders in the US congress.

ROK-US Military Cooperation

South Korea's Share of Defense Cost to Reach \$867 Mil., 5.8% Increase from 2013

The Ministry of Foreign Affairs announced the results of the ninth round of negotiations for the five-year Special Measures Agreement (SMA) between South Korea and the US on January 12.

The Korean government agreed to contribute 920 billion won (US\$867 million) to keep US troops in the country. The number means a year-on-year increase of 5.8%. In addition, both countries decided to try harder to resolve differences starting from the allocation of Korea's share of the costs for US troop presence in order to increase transpar-

ency.

The renewed agreement will be effective until 2018 with a maximum 4 percent annual increase in the amount.

At first, the negotiations encountered difficulties. Korea insisted on 900 billion won by applying a maximum 4 percent annual increase, while the US argued that it reduced the amount from a trillion won to 950 billion won. Ultimately, the costs were negotiated to 930 billion won, considering that the US forces have strengthened Korea's readiness in light of a serious security threat in the Korean peninsula and US defense



■ Seoul accepted a 5.8 percent increased contribution to keep US troop presence in South Korea

budget cuts. The fact that the previous SMA signed in 2009 expired at the end of 2013 also accelerated the deal. ^{BK}



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The won-yen currency exchange rate falls rapidly, and the Korea Exchange Bank manager counts yen.

Currency Triangle

What Are Potential External Threats to Korean Economy?

The Foreign Exchange took a fall on New Year's Day, casting a shadow on the Korean economy. The won-dollar exchange rate fell below 1,050 won per dollar during the day. The won-yen rate fell as well to 997 won per 100 yen, repeating the gain of the last day of 2013 when it fell below 1,000 won before closing.

Foreign Exchange Authorities Declare Maginot Line of 1,050 Won per Dollar

On January 2, the exchange rate against the dollar fell by 5.1 won compared to the last trading day of 2013. In the morning it opened at 1,050.4 won, and closed at 1,050.3 won. Active trading typical of New Year's Day, combined with the massive volume of out-

standing balances that had been sitting idle, was released, and the floodgates opened. At one point during the day the won-dollar exchange rate fell to 1,048.3. The won-dollar exchange rate has not fallen below 1,050 since August 22, 2008 when it fell to 1,048 during trading. Finally, local authorities bought dollars to ease the free fall, and the rate of 1,050 won per dollar was restored.

Samsung Future Options Researcher Chun Seong-Ji said, "Foreign exchange authorities felt uneasy that 1,050 was broken on New Year's Day. But because of the currency account surplus and volume that has been sitting idle, it is inevitable that the won will eventually fall below the 1,050 won mark."

As the won's rate against the dollar fell, the financial exchange rate, or arbitrage rate, against the yen also gave

in. At 3 o'clock on January 2 the yen-dollar exchange rate was recorded at 105.31 yen per dollar, and the won-yen exchange traded at 997.44 won per 100 yen. It broke the 1,000 won barrier on December 30 of last year, and again fell, finally settling into a three-digit figure.

35.3 Percent Gain against Yen in Just 15 Months

The exchange rate had once fallen drastically when the US fiscal cliff negotiations ended in January 2 last year. Then the government acted swiftly to protect the won by imposing macro level prudential policy. But the foreign exchange authorities' perspective this year is more complex. Not only does the US begin the tapering of quantitative easing this month, but Japan is insti-

tuting a sales tax hike to take effect in April. Also, unlike last year, the global markets are allowing Japan's deliberate depreciation of the yen. To make matters worse, Korea has just recorded its highest ever account surplus.

From a historical perspective, the trend of the won's exchange rate is worrisome. According to Hyundai Research Institute, observing the yen's weakness shows a shocking pattern. During the first period between May 1988 to 1990, following the US' S&L bankruptcy crisis, the won gained 27 percent in value with the dollar. Then between June 1995 to July 1996 (the so-called Plaza Accord age) and from December 2004 to June 1997, the won again saw 21.3 percent and 33.7 percent gains. During the fourth period since September 2012, dubbed the Abenomics period, the won has risen a whopping 35.3 percent. This is a chilling revelation for Korea's export business.

If this year's annual yen-dollar exchange rate is 105 yen to 1 dollar, gross exports will be down by 2.2 percent.

Analyst Manager Lim Hee-jeong of Hyundai Research Institute said, "Domestic consumer confidence is weak. The financial and real economy are both expected to take a major hit." Then he said, "If this trend of the won's gain continues like this, it will be necessary to consider further lowering the interest rate and increasing liquidity."

Carry Trade Will Have Little Merit

The rapidly falling yen has fueled interest for carry trades, as well. Cheap yen can be bought and re-invested in another currency. However, it is unlikely that carry trade will be attractive, like last year, according to market experts. Currencies such as the yen, euro and Australian dollar, which are widely used in carry trades, will only weaken, as they will be using monetary policy

that is against the current tide of the US's tapering of quantitative easing.

Forex Team Manager Chung Kyung-pal said, "Korea's fundamentals are healthier than other Asian countries. Foreign currency can overflow, driving up the won, but with the tapering of quantitative easing just beginning, the currency gain will be limited, and there will be little to profit from the exchange of foreign currency." Then he added, "With the exception of US dollar, which has a direct impact on the stocks and bonds market, other currencies are likely to end up in cross currency trade, within the confines of the exchange rate market."

Potential External Economic Threats

As the yen-dollar exchange rate is reciprocally fueling the downward sprawl of yen and potentially hurting the Korean economy, the Ministry of Strategy and Finance announced officially on January 7 that the US's tapering of quantitative easing and Japan's depreciation of the yen are potential external economic threats.

It is the first time since early 2013 that the MOSF had identified the weakened yen as a potential external threat. Only the tapering of quantitative easing had been labeled as a threat, previously.

According to the MOSF, the continued depreciation of the yen has accelerated the current of international cash flow, and in the anticipation of a sales tax hike it has become necessary to monitor the yen, along with the US's tapering of quantitative easing.

The announcement was made as the yen-dollar exchange rate climbed up to 105.04 yen per dollar, an 18.26 percent increase from the same period two years ago.

Weak Yen Casts Long




Shadow

Meanwhile, automobiles, steel, and machinery are the hardest hit areas by weakened yen, according to the Bank of Korea.

In a report published on January 13 by the Bank of Korea (BOK) titled Impact of Yen in Our Import and Export, the BOK laid last year's poor performance of auto steel and machinery part exports firmly at the foot of the yen.

Comparing the export price index of machinery manufactured in Korea to that of Japan from September 9 to October 10 of 2013, the report showed a price increase of 15 percent in automobiles and 8 percent in steel manufactured in Korea, reflecting a drop in price competitiveness.

Lee Jae Hyung, an analyst for Tongyang Securities Inc., said, "The report that came out cast a more positive light than was initially expected." But he added, "However, there is still not much that Bank of Korea can do, as far as interest rates, even as the weak yen persists. That poses a concern."

The report said that the impact of the yen until last year was limited, but the pace of depreciation was casting a negative outlook, and so exporters should be wary. 



Kim Gwang-shik

chairman of the Incheon Chamber of Commerce and Industry

Incheon Chamber of Commerce and Industry

Striving to Create Investor and Business-friendly Environments

Business Korea magazine sat down with Kim Gwang-shik, chairman of the Incheon Chamber of Commerce and Industry in order to speak about the progress of the Incheon region, the upcoming Asian games, and the next steps in its continued development. The following are excerpts from the interview.

Would you give a brief summary of the regional economy of Incheon for last year and the outlook for 2014?

Incheon City showed improved results last year in terms of employment and exports alike, in spite of the economic recessions both at home and

abroad. In particular, the major industries such as automobile and petroleum product manufacturing led the growth, despite the decreased manufacturing output and shipments, and the slump in the construction sector.

The Korean economy is expected to grow 3.7% this year, according to the Korea Development Institute (KDI), and the export growth is forecast to be accelerated along with the increase in domestic consumption. Under the circumstances, the regional economy of Incheon City is predicted to enjoy a recovery as well.

Please give an explanation of the industrial structure of Incheon, its

economic output, and percentage of the national economy.

Incheon accounts for 5% or so of the national economy of Korea. Specifically, 5.5% of the population is living in the region, taking up 4.8% of the gross regional domestic product (GRDP). The ratios are 4.9% in terms of the number of business entities, 4.7% in the number of employees, and 4.9% in exports. The regional employment rate is 61.9%, which is higher than the national average by a margin of 1.4 percentage points, and the unemployment rate of 3.6% is a little higher than the average of 2.8%, too.

Although the ratio of the manufacturing sector is high, a rapid change in industrial structure is underway now. Manufacturing stands for 30.0% of the regional industry, followed by transport (13.4%), construction (8.0%), and retail, wholesale and service (48.0%). During the past 10 years, the manufacturing sector's ratio fell by 10 percentage points, while the service industry raised the figure by the same amount.

The region's total production is at around 60 trillion won, ranking third following Ulsan (68 trillion won) and Busan (62 trillion won). It also accounts for 4.9% of the total exports from the country and 7.7% of the imports to it. It mainly exports manufacturing products to the United States, China, and Japan, while importing raw materials from China, Qatar, and Australia. Cars take up 18.1% of the exports, followed by auto parts (9.8%), semiconductors (6.9%), and steel plates (6.3%), while 25.8% of the imports is natural gas, 12.0% petroleum, 6.0% alloys and scrap iron, and 5.9% coal.

What are the pending issues of Incheon's regional economy and its future development directions?

Incheon is home to abundant industrial infrastructure, including the airport, port, free economic zone, and 10 industrial complexes. It is close to China, the world's largest consumption market, and is on the outskirts of the metropolitan area. Still, it is in the face of regulations on the growth of the capital area charac-



Bird's-eye view of Gangwha Industrial Complex

terized by the Seoul Metropolitan Area Readjustment Planning Act and high land prices, the lack of factory sites, and an increasing number of industrial facilities moving out to other regions.

We need to attract more local and foreign companies while further developing our industrial complexes for high-tech industries. The targets include the manufacturers that are hoping to return from East Asian countries such as China. In the first quarter of 2013, Incheon attracted a foreign direct investment of US\$1.469 billion to take the highest spot in Korea, and the efforts should be continued on the global level. New growth industries like biotechnology, new and renewable energy source production, and photovoltaic energy are emerging rapidly to increase their shares. We will have to attract companies in these industries with the most attractive conditions so that they can become the new growth engines of the region.

During the past decade, the ratio of manufacturing dropped by 12.3 percentage points in Incheon along with the ratio of its GRDP, compared to the national total. This situation can be addressed by promoting the manufacturing sector by means of R&D in the metal, machinery, and plastics industries.

A lot of production facilities have relocated themselves to the southern region, and apartments and housing complexes are taking their place, causing Incheon to become a sort of bed

town for those working in Seoul. However, the municipal and central governments will work on more measures down the road in order to ensure the future growth of the regional economy. The specific measures include those that can be applied to the automobile, IT convergence, biotech, medical equipment manufacturing, electronics, fashion, and many more sectors.

Incheon houses the world's best airport, but its strategy to turn it into a regional hub has been hindered by the central government's fostering of Gimpo Airport. Likewise, it has Incheon Port, which handles a volume of shipments to and from China, but the two-port policy of the government has limited its growth for a while.

At present, the importance of Incheon Port is on the rise amid the rapid expansion of the Chinese and Southeast Asian economies, and thus ways for the better utilization of the Incheon New Port have to be sought. Also, it has to be more closely linked to the Seoul/Incheon International Airport for Incheon to remain a logistics hub of Northeast Asia. Incheon City is planning to get some of the shares in the airport, sharing the central government's logistics policy and vision, and suggesting constructive opinions.

What are the Incheon Chamber of Commerce and Industry's key projects for regional development?

Now is the time for us to make greater efforts if we are to hand over a


vibrant Incheon. The Incheon Chamber of Commerce and Industry will strive hard to create investor and business-friendly environments.

In this context, the city government held a joint IR session with the authorities concerned last year and revised the ordinances related to the relocation of corporate headquarters' and business attraction. Such endeavors will continue throughout 2014 for greater investment and employment.

The construction of the Gangwha Industrial Complex, which broke ground in March last year, will come off without a hitch in the second half of this year. It will address the problem of factory site shortages in Incheon, while taking the lead in the revival of the manufacturing sector to be a cornerstone of regional development.

The FTA Support Center, established as the first one of its kind in Korea, will keep providing assistance so that firms in Incheon can make better use of the Korea-EU FTA and the KORUS FTA. It will nurture and train FTA experts, contributing to the employment situation of the country as a whole, too. In the meantime, the Human Resources Development Committee, which was set up last year, is offering HR fostering systems tailored to regions and industries for more effective job placement.

The Intellectual Property Center is going to shore up its on-site consulting function as a partner of Korean firms exposed to the patent war in the global arena. The importance of intellectual property will be publicized in a strategic way, and we expect that the significance of intellectual property can be better recognized by public organizations and local companies.

This year, the 2014 Incheon Asian Games takes place in September. A number of private-public cooperation opportunities will be sought building on the international sports event, and be a boon to the regional economy. The chamber will suggest various opinions through multiple channels and do its utmost so that companies located in Incheon City can contribute to the successful hosting of the Asian Games. 

Conglomerate Investment

Top Four Korean Conglomerates' Investment Estimated at Over 100 Trillion Won

It is expected that the combined investment by the four major business groups in Korea - Samsung Group, Hyundai Motor Group, SK Group and LG Group - will exceed 100 trillion won (US\$94 billion) this year. Last year, the amount was approximately 98 trillion won (US\$92 billion). In early 2013, they announced that they would make an investment of 48 trillion, 14 trillion, 16 trillion and 20 trillion won each. The actual amount of investment is said to have been slightly lower than the targets.

The Samsung Group reported to the Ministry of Trade, Industry and Energy late last year that its investment for 2014 would be around 50 trillion won (US\$47 billion), which is about two trillion won larger than the previous year. Samsung President Lee Sang-hoon met with reporters on January 14 at the Seoul Plaza Hotel and mentioned the amount.

Samsung has already made public its plan to set up a new biosimilar production plant this year. Samsung Electronics and Samsung Everland said late last year that they would invest 600 billion won (US\$564 million) into Samsung Biologics to this end. In addition, large-scale investments are scheduled in the group's main business fields such as semiconductors, mobile phones, and displays. Cheil Industries is going to increase its investment in materials research as well.

The Hyundai Motor Group has only a few reasons to step up its investment, because its major investment projects were wrapped up in 2013. This year's amount is estimated at 14 trillion won (US\$13 billion), which is similar to last year's, and most of it goes to the development of eco-friendly vehicles and information technologies and the merchant ship business of Hyundai Glovis. Its fourth plant in China is expected to be built in 2014, too.

The SK Group is planning on an investment of 16 trillion won (US\$15 billion) or so, mainly in the petrochemical and semiconductor sectors. SK Chemicals' joint investment has been postponed due to the delay of the parliamentary passage of the Foreign Investment Promotion Act, which allows joint business between a sub-subsidiary company and a foreign company, and SK Lubricants and SK Chemicals are predicted to speed up the investment this year for facility expansion. In addition, SK Hynix has recently decided to add two production lines to its DRAM semiconductor facilities in Icheon City, Gyeonggi Province. Investment for convergence R&D research and the establishment of an LNG power station are also slated for this year along with that in the information and communication technology (ICT) sector.

LG planned on a 20 trillion won investment last year, but

only executed 80% of it. This year, the amount is likely to be increased from a year earlier. It is going to concentrate the investment on ultra HD TVs and flexible display panels.

The conglomerates could not come up with clear investment plans last year due to the risks associated with regulations. However, they are expected to bring out bigger plans in 2014 as the government is encouraging them to do so while promising to improve the business environment. **BR**



■ Korea's top 4 conglomerates.

Economic Concentration

Samsung, Hyundai Motor Occupy More than 33% of Korea's GDP

According to Jaebol.com, the top 10 conglomerates in 2012 by asset made 61.2 trillion won (US\$57.9 billion) in profits, comprising 43 percent of the total amount of 141.7 trillion won (US\$ 134 bil) of profits by all Korean corporations. The combined operating profit of Samsung and Hyundai Motor was 43 trillion (US\$ 40 billion), roughly 30 percent of the total figure.

This result is alarming to some, who called for efforts to diversify and nurture various industries and companies.

"I'm analyzing the extent of economic concentration of Samsung and Hyundai Motor groups," said Deputy Prime Minister and Minister of Strategy and Finance Hyun Oh-seok at KT's Gwanghwamun office on January 13.

Since his remarks were made while Samsung Group and the Hyundai Motor Group constitute more than 33% of Korea's GDP, the government's future responses are getting a lot of attention.

According to business performance appraising agency CEO Score, Samsung represented 23% of the country's GDP in 2012, and Hyundai Motor 12%. The two companies comprised 35.0% in 2012, up 11.9% from 2008 (23.1%). If sales of their business partners are considered, their proportion will be even higher. **BR**

Stagnation of Samsung

Has Samsung Electronics' Smartphone Business Reached Its Limit?

With Samsung Electronics' negative performance outlook for the last quarter of 2013 turning into a reality, keen attention is being paid to how it will tackle the slump down the road.

The consensus of electronics and securities industry insiders is that Samsung's current efforts for the expansion of the mid-end smartphone market will do the trick in the short term, but the deterioration of its profitability is likely to continue, unless its new growth drivers such as battery and medical device manufacturing do their part.

At present, the mid-end smartphone market and China are mentioned as the keys to a turnaround. "The IT and Mobile Division of Samsung Electronics, which is in charge of the company's mobile phone business, is predicted to have posted six trillion won [US\$5.6 billion] in operating profits in Q4, 2013 due to the shrinkage of the premium smartphone market," said LIG Investment & Securities analyst Hong Seong-ho, adding, "The amount is approximately 700 billion won [US\$655 million] short of its highest record made in the previous quarter."

The high-end smartphone market of handsets priced at US\$500 or more has remained in the doldrums across the world since last year. The average selling price of Samsung's phones dipped below US\$300 for the first time, to reach US\$272 in the third quarter. Under the circumstances, experts are forecasting that Samsung will concentrate on the market of between US\$300 and US\$500 so as to improve its profit-making capabilities.

"If focusing on the mid-level smartphone market with its high manufacturing capacity and wide product distribution channels, Samsung will be able to increase the size of its operating profits

significantly, although there would be some drop in profitability," the analyst continued.

Still, its outlook in the Chinese market is not entirely rosy. "Apple and the number one local mobile carrier, China Mobile, are partnering with each other in the emerging LTE segment, while the rest of the Chinese market is dominated by local companies such as Huawei, ZTE, and Xiaomi Tech, which means things are far from favorable for Samsung," said an industry insider.

In the meantime, the deteriorating profitability is expected to become a sort of trend for many in the mobile phone industry, not limited to Samsung Electronics. "It seems that the development of the performance of smartphones has reached its limit and no breakthrough is seen for now," said Baek Jong-seok, Hyundai Securities research analyst. He went on, "The companies are expected to focus on design and cost competition,

and thus an improvement in profitability will take more time."

Experts are pointing out that Samsung Electronics needs to find new growth momentum following semiconductors and mobile phones if it is to get over this crisis. In fact, Samsung has already announced five new growth plans in 2010. According to the plans, Samsung will invest 23 trillion won (US\$21.5 billion) in those sectors by 2020 to record 50 trillion won (US\$46 billion) in sales.

Specifically, it is going to invest 1.2 trillion won (US\$1.1 billion) in the medical device business and double its manufacturing capacity to 20,000 units a month by 2020. To this end, it has acquired medical instrument manufacturers like Prosonic, Nexus, and NeuroLogica, but has shown no remarkable business results. The story is not so different in the LED and automobile battery businesses, either. BK



■ Samsung Electronics' 44-story headquarters building in Samsung Town, Seocho-gu, Seoul, South Korea.
(Photo courtesy of Oskar Alexanderson/Wikimedia Commons)

Liquidity Crisis

41 Trillion Won in Corporate Bonds Mature in 2014



An increasing number of companies are struggling to procure cash. In particular, a lot of construction and shipping companies' corporate bonds are scheduled to mature in January and February, increasing the possibility of another Tong Yang crisis. Although the government will provide some support for those vulnerable companies, they are hesitating, worried about a labeling effect. Economists are pointing out that the risk in the vulnerable sector could further affect the capital market in the wake of the Tong Yang Group scandal.

According to Samsung Securities and other industry sources, a total of 41.2 trillion won (US\$38.5 billion) worth of corporate bonds mature this year, which is approximately 2.5 trillion won (US\$2.3 billion) larger than the previous year.

The sum amounts to 19.255 trillion won (US\$18.0227 billion) for the top 30 conglomerates alone. Among them, those with a higher ranking and a sounder financial structure are expected to have little difficulty in issuing new corporate bonds. However, the others could face a liquidity crisis due to the instability in the debenture market.

Data from the Financial Supervisory Service shows that the amount of corpo-

rate bonds issued in November last year was 3.3678 trillion won (US\$3.1523 billion), 1.7064 trillion won (US\$1.5972 billion) less than in October. 88.4% of the bonds were AA grade. In the meantime, according to NH Nonghyup Securities, the outstanding ratio of the bonds with an A or lower grade issued between January and November 2013 amounted to 56.6%.

"The year of 2014 will be very tough for the corporate bond market," said Hyundai Securities analyst Min Dongwon, adding, "The credit spread is likely to go up, due to the rise in the interest rate of government bonds and lots of bonds mature this year, which means the supply and demand situation is far from favorable." Another concern is that the government's measures for the stabilization of the market are not working as desired.

As stated above, the labeling effect is the biggest reason why the companies are unwilling to apply for the measures. When an applicant will benefit from conversion issue assistance, it has to sign a credit transaction MOU with its main creditor bank and be subject to restructuring by means of the disposal of assets and subsidiaries. **BR**

Credit Risk

Corporate Credit Risk Index Surges to 4 Year Record High

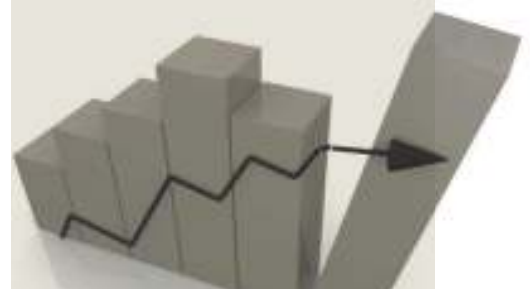
A gauge of Korea's corporate credit risk in the fourth quarter of last year climbed the most in four years. Due to the weak yen and the vulnerable financial structure of some of the large companies, the credit risk is projected to be even higher.

According to the results of a survey on financial institutions' lending activities released by the Bank of Korea (BOK) on January 6, the credit risk index of Korea's large companies in Q4 2013 is 16. The number is the highest since the second quarter of 2009, when companies experienced financial difficulty because of the global financial crisis.

The index ranges from -100 to 100. It means that as the number is up, lending to large companies is more dangerous.

The country's corporate credit risk index soared to 28 in Q4 2008 and gradually decreased to the negative level in 2011. However, it increased again and has stayed in the range of 6 to 9 since the third quarter of 2012.

An official at BOK said, "The credit risk of large companies in the first quarter of this year is expected to maintain the same level as the last quarter, owing to internal and external factors such as the weak yen and worries about the vulnerability of some large companies' financial structure." **BR**



Benchmark Interest Rate

Benchmark Interest Rate Unchanged for 8 Consecutive Months



■ The Bank of Korea building in downtown Seoul. The building was completed in 1912.

The Bank of Korea decided to keep interest rates on hold at 2.50% at a monetary policy committee meeting on January 9. As a result, the nation's benchmark interest rate has been unchanged for eight straight months, after rates were trimmed by 0.25% in May 2013.

At this point, a rise in interest rates may hamper the nation's economic recovery, and it can be a heavy burden on members of society prone to household debt, which already exceeded a quadrillion won (US\$941 billion). In contrast, reduced rates can be a short-sighted monetary policy, since the Federal Reserve has just started tapering its quantitative easing policy.

Brazil, India, Indonesia, South Africa, and Turkey have already raised their key interest rates to prevent currency depreciation. Other Asian countries are also expected to raise interest rates this year to respond to the US Fed's tapering of quantitative easing. **BK**

Growing Workforce

Youth Unemployment Rate Drops to Historic Low

The youth unemployment rate dropped to its historic lowest number since statistics have started to be gathered.

The outlook for youth unemploy-

ment looks grim as Korea's top corporations again cut back on recruiting plans. The total number of employed in 2013 was 2.5 million, up by 386,000 from 2012.



■ Youth unemployment drops to historic low, but outlook for 2014 still looking dim.

However, a snapshot of youth unemployment reveals a different picture. It has been on a steady decline since 2000. In 2013, the number of employed youth was roughly 3,793,000, the lowest figure ever recorded.

But this year's prospect is even dimmer, according to the Korea Chamber of Commerce and Industry (KCCI)'s survey of 500 top corporations for the year 2014. 40 percent said in the survey that they had either yet to make recruitment plans, or had no plans to recruit.

KCCI Research Center Labor Study Manager Park Jae-gun said, "There are still uncertain signs as far as economic outlook is concerned. In addition, various factors such as the wage structure controversy and extension of retirement age have impacted corporate recruit plans."

But some say that if recruitment plans were to increase in the top 30 corporations, which make up 65 percent of the recruitment market, conditions might improve, and any signs of positive economic growth might trigger youth employment. **BK**

Cross-share Holdings

Ban on Cross-share Holdings Expected to Be Enacted Soon



It seems that the law banning cross-share holdings, which was not expected to pass the National Assembly before the end of this year, will be able to make it through the National Policy Committee and the plenary session sooner or later, though in a limited manner.

The revision is likely to have a less-than-expected impact, because the committee accepts the existing forms of cross-share holdings while adding some exceptional clauses to the revision bill. Nevertheless, big businesses' adoption of a holding company structure is likely to be accelerated following the ban on circular equity investment.

According to the Fair Trade Commission's data, only 22 out of the 62 major business groups in Korea owned a holding company, as of the end of September this year. For example, SK, LG, GS, Doosan, CJ, and LS have already turned themselves into holding companies. Meanwhile, the Samsung and Hyundai Motor Groups are still maintaining a circular equity investment structure. In addition, it is said that even the converted conglomerates are in possession of many subsidiaries out of the structure.

Cross-share holdings have been criticized as an expedient tool for the inheritance and donation of property, strengthened business ownership, support for insolvent affiliates, and circumvention of regulations. Under the circumstances, President Park Geun-hye has shown a

strong will to put a brake on it, including the law in her election promises and national policy goals.

The economic community has been opposed to the law, mentioning that the ban on cross-share holdings could result in shrinkage of investment and M&As, and make it difficult to cope with hostile M&A attempts. This is why the National Policy Committee opted to allow exceptions in certain cases.

The community is relieved to see that the cross-share holdings which have been made so far are not subject to the prohibition. According to the Economic Reform Research Institute's report published in July last year, as much as 9.6 trillion won (US\$9.1 billion) of equity value has to be sold in order to remove the circular equity investment of the top 15 groups. The amount is approximately 6 trillion won (US\$5.6 billion) for the Hyundai Motor Group and about 1 trillion won (US\$943 million) for Samsung.

The revision bill is expected to add speed to their conversion into holding companies down the road, because the conversion is the surest way for corporate successions not based on cross-share holdings.

Concern over Vulnerability to M&A by Speculative Funds

In the meantime, some industry insiders are pointing out that the ban on cross-share holdings will lead to a

shrinkage of investment amid today's adverse business conditions, such as the tapering of the Fed's quantitative easing exit strategy, expansion of the scope of ordinary wages, and ongoing weak yen trends. They say that the prohibition could be particularly fatal for those going through restructuring.

For example, investment through capital increase should be made when a company intends to restructure its subsidiaries, but the efforts could be made difficult if it is regarded as a new circular equity investment. Korean companies like STX PanOcean could be taken over by foreign funds at a giveaway price, too.

Another controversy lies in the limited defense of ownership, that is, the ban on cross-share holdings means that local enterprises cannot deal with hostile takeover attempts by foreign funds. "The government is moving to deter investment on one side while trying to revitalize the economy by means of private investment on the other," said the Federation of Korean Industries.

Exceptional Clauses Allowed for Certain Cases

Four exception clauses are to be included in the revision bill. Specifically, the comprehensive exchange and transfer of shares are allowed when deemed necessary during the course of the four cases of corporate mergers and divisions, acquisition of entire business rights, exercise of security rights and reception of payment in substitutes, and business restructuring.

The problem is the specific scope of the exception clause regarding business restructuring. The National Policy Committee recently held a legislative subcommittee meeting and decided that cross-share holdings for restructuring purposes include the investment of private property by a business owner and participation of a subsidiary shareholder in a paid-in capital increase. In this case, it is allowed without limitation in the equity share, and an increase in share ratio caused by forfeiture has to be addressed within one year. ^{8K}

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Reverse Discrimination

Korean ICT Companies Suffering from Reverse Discrimination Due to Regulations

It has been almost a year since President Park Geun-hye declared that she would deal with the stagnation of the national economy by means of the concept of the creative economy. The government and the people expected that the information technology (IT) industry, the core of the concept, would result in a greater number of startups to revitalize the national economy.

Nevertheless, the economic regulations governing the IT industry are becoming more severe. The Internet and digital content industries are taking a direct hit in particular. In short, the government's creative economy drive has been a hollow promise, at least so far. What is especially problematic is that the regulations have affected only Korean companies while their competitors from abroad, which are not subject to the restrictions, are taking advantage of the situation to increase their presence in the local markets.

Korean information and communications technology (ICT) companies are groaning due to global giants' push. For example, domestically-developed social networking services (SNSs) such as Naver's MeToday, SK Communications' C-Log, and Daum Communications' Yozm have been driven out of the market by Facebook and Twitter, while eBay and Google have dominated the local open and Internet video market. Things are not much different in the portal and game sectors, either. In the former, Google surpassed Daum Communications in terms of market share to rise to the second spot in September. Chinese ICT giant Tencent recently ranked first in the online game market, too.

Local market share of three ICT sec-



■ eBay's local open market share has exceeded 60% since it took over Gmarket and Auction.

tors in Korea.

The problem is that this situation is not because of local consumer choice, but the government's regulations that have led to reverse discrimination. Particularly, Google has had the inside track building on its Android operating system, whose local market share is over 80% now.

Foreign ICT Giants Dominating Korean Market

According to Democratic Party lawmaker Yoo Seung-hee, Google's YouTube has dominated the local Internet video market since 2009, when the government put the real-name system in place on Korean companies in the industry. Likewise, eBay's local open market share has exceeded 60% since it took over Gmarket in 2009. Things are even worse for Korean SNS providers. SK Communications' Cyworld has given way to Facebook. Under the circumstances, an increasing number of

people are expressing concerns that foreign portal and game service providers will sweep the local market in no time.

Portal companies, which are heavily dependent on search ad income, are feeling uncomfortable with the government's suggestion for the development of Internet search services announced last month. "We are very closely monitoring the user response and sales movement associated with the restrictions," said Naver's Chief Financial Officer Hwang In-joon. Meanwhile, Facebook and Twitter, which enter the search ad market this month, are free from the regulations. "Twitter is moving nimbly these days, partnering with a local advertising agency right after unveiling its advertising products this month," said an industry insider.

Korean game companies also have a headache. Currently, League of Legends, published by Riot Games acquired by Tencent, is sweeping the local market with an overwhelming 40% market

share, followed by EA's FIFA Online 3. "Nowadays, e-sports broadcasting channels are revolving around imported games like League of Legends, World of Tanks, and StarCraft 2," a gamer explained.

Foreign SNS Becoming Channels for Distribution of Harmful Content

The impact of reverse discrimination does not stop at unfair competition. Sites such as Google, Facebook, and Twitter are increasingly becoming channels for the distribution of obscene and violent materials with no domestic law being capable of putting a brake on it. For instance, idol singer HyunA's recent provocative music video received over four million hits on YouTube just two days after release. Adolescents do not need to go through any adult authentication process to access YouTube.

Similar things are taking place in the open markets. The Korea Communications Commission has recently announced that a total of 285 pieces of harmful digital content were distributed on Google Play and the AppStore between the first eight months of this year. Pre-censorship is applied to the local open market, and thus harmful content is unlikely to be circulated there. However, foreign markets are only subject to post-censorship.

"Unless the excessive regulations imposed by the government are eased, foreign companies will take up a larger share of the local market at a more rapid pace down the road," said a market expert.

Government Will Ease Internet Regulations to Avoid Reverse Discrimination

Amid such controversies, the Ministry of Science, ICT and Future Planning in November came up with plans for deregulation in the local Internet industry in conjunction with 11 government authorities concerned.

The purpose of the first Internet industry deregulation plan is to get rid of restrictions that cause reverse discrimination or shrinkage in industrial activities and address the flaws of the

government's current regulations such as the Real-name Internet System and the Recommendation for Internet Search Improvement. The Real-name Internet System, put in force back in April 2009, has resulted in a collapse of local video websites while anonymity-based YouTube increased its market share in Korea from 2% to 70% during the same period.

Under the circumstances, the ministry collected 51 official opinions in April this year from seven organizations in the industry, including the Korea Internet Corporation Association, the Korea Online Shopping Association, and the Korea Internet & Digital Entertainment Association, and then worked together with the 11 agencies to finalize the plan.

Growth of New Industries Hampered by Excessive Regulations

The Park Geun-hye government is striving to foster the growth of new convergence and ICT-based industries, but various regulations and the lack of systemic support are hindering the efforts. For example, companies in the game and mobile Internet industries are subject to even stricter regulations than before, and the telemedicine and new media sectors are mired in regulations as well.

Restrictions on the game industry have become much more severe since the inauguration of the new government. The Game Addiction Prevention Act, recently sponsored by Saenuri Party lawmaker Shin Eui-jin, stipulates games as a highly addictive substance along with alcohol, drugs, and gambling.

Likewise, the telemedicine industry is showing little growth due to delays in the preparation of legal systems for over 10 years. The current Medical Act bans

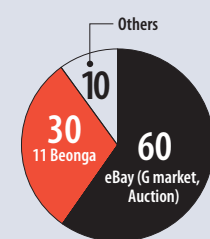
remote medical examination and treatment of patients by doctors, and thus the popularization of healthcare devices, which are essential for telemedicine, is not easy.

In the meantime, the government regulations have led to reverse discrimination in the mobile application market. Google and Apple are free from the application rating and identification procedure imposed by domestic law, but local markets such as T-Store have to make additional efforts to comply with the restrictions. Besides, a surtax on distributed content is applied only to local application markets, which compromises their profitability.

"The issue of reverse discrimination will continue arising in a variety of sectors, as well as the app market, as more and more foreign companies enter the Korean market," said SK Planet, adding, "We need at least some balance between the regulations imposed on domestic and foreign companies."

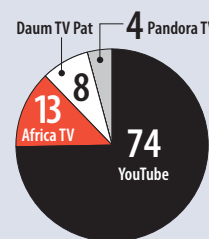
Experts are pointing out that the government further backs up the new industries by means of new policies and better systems, too. One of the examples is the legal and systemic tools for energy conservation projects using low power consumption technologies, intelligent smart buildings, and smart factories.

The government is moving ahead with deregulation plans for the promotion of the ICT sector, selecting 20 top-priority projects. However, the pace is falling short of expectations of many. "The deregulation efforts appear to be improper because each of the projects is involved with too many organizations and ministries, which makes mutual cooperation and negotiations difficult," an industry insider explained. R&B



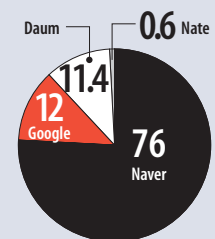
* As of the end of august

Share of Local Open Market (Unit:%)



* As of the end of august

Share of Local Internet Video Market (Unit:%)



* As of the end of august

Share of Local Internet Video Market (Unit:%)

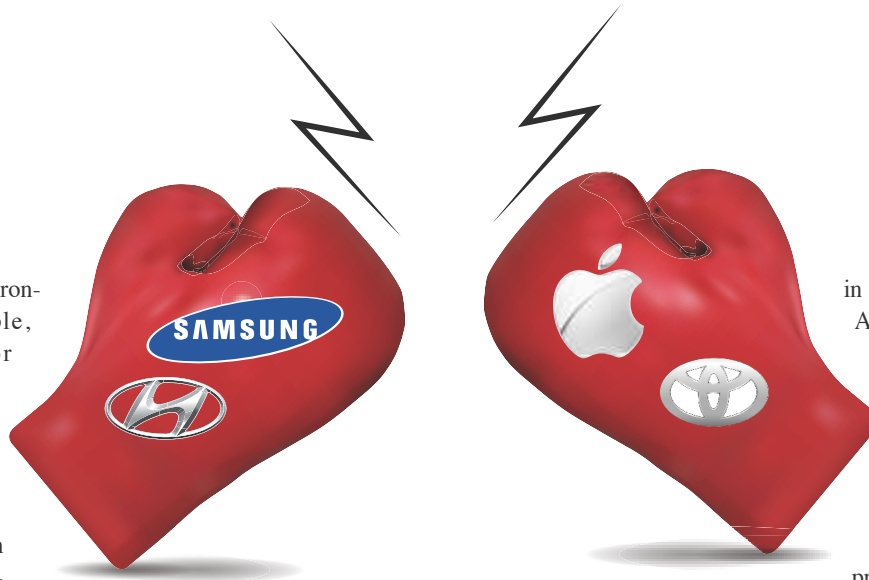
Rivalry in Global Market

Samsung Electronics Vs. Apple, Hyundai Motor Vs. Toyota

Samsung Electronics and Apple, Hyundai Motor Company, and Toyota competed fiercely with each other in the global market in 2013. Since earlier this year, Apple and Toyota have stood on the winning side in terms of stock price movement amid international litigation, foreign exchange wars, and economic policy directed toward trade protectionism. However, Samsung and Hyundai are expected to catch up with their arch rivals in 2014, capitalizing on the growth of the mid-end smart phone market and the new cars to hit the global market next year.

According to the Korea Exchange, Samsung Electronics broke the 10 trillion won (US\$9.5 billion) mark in operating profits in the third quarter of 2013 to continue its earnings surprise, but its stock price did not follow. This is because market participants' expectations for Samsung are so high. The decoupling between the global and Korean stock markets since the beginning of this year and the Vanguard issues have played their part, too.

Still, many market watchers are expecting that the sluggish performance will stop this year, because Samsung Electronics is outperform-



ing Apple when it comes to valuation and cost competitiveness. "Samsung has already increased the ratio of self-developed components significantly, and the brighter outlook of the global semiconductor industry is likely to contribute to its operating profits," said Shinhan Investment Corporation Research Analyst Kim Yeong-chan, adding, "Also, Samsung Electronics' stocks are undervalued with a price earnings ratio of 7.8, which is lower than Apple's 14.09 and the KOSPI's 9.5."

Meanwhile, Apple has to procure more components from Samsung Electronics, SK Hynix, and the like, which means its margin is likely to fall with time. It is Samsung Electronics that is expected to take the most advantage of the situation.

According to financial information provider FnGuide and Bloomberg reports, Samsung Electronics' business profits are estimated at 38.93 trillion won (US\$37.00 billion) this year, with a year-on-year growth rate of 34%. The percentage is predicted to reach 7.47%

in 2014 as well. However, Apple's annual operating profits are forecast to decline by 6.17% this year and go up by just 3.87% next year.

In the meantime, this year's stock prices of the rivals in the auto industry were determined by the currency

exchange rate. Hyundai and Kia have gained 5.26% and 0.18% since the first day of this year, but Toyota's share price skyrocketed by as much as 60% thanks to the Abenomics policy and the weak yen trend.

The trend is likely to be ongoing at least for a while, but the Hyundai Motor Group's outlook is quite positive. The yen-dollar rate has already shot up to 105 yen per US dollar in May and thus an additional shock is limited. The group's overseas manufacturing plant expansion is weakening the impact from exchange rate fluctuations.

"Hyundai's growth momentum is getting stronger as the exchange rate impact is declining, and new models such as the New Soul and New Genesis are on the market," Korea Investment & Securities researcher Seo Seong-moon explained, continuing, "Hyundai will be able to enjoy greater growth than Toyota because of the base effect." Hyundai and Kia's price earnings ratio is between five and seven, lower than Toyota's 14. **BR**

Another Record Year

Korea's Exports, Trade Surplus Hit Record High Last Year

The Ministry of Trade, Industry and Energy announced on January 1 that Korea's exports and imports for this year are forecast to increase 6.4% and 9.0% year-on-year to US\$595.5 billion and US\$562 billion, respectively. It added that international raw materials prices are likely to show some stability amid improvements in consumer sentiments, leading to a higher growth rate on the import side.

According to the ministry, the exports of ships, wireless communication devices, automobiles, general machinery, and petrochemical products are expected to increase at least 4%, while those of auto parts, computers, consumer electronics, textiles, steel, and semiconductor products would grow less than that. By region, the exports to China, North America, and many Asian countries are showing positive signs unlike those to Japan.

In 2013, Korea's yearly exports grew 2.2% from a year earlier to

US\$559.7 billion, whereas the imports fell 0.8% to US\$515.5 billion to add up to a trade surplus of US\$44.2 billion. It set new records in terms of total exports and trade surplus alike, to record US\$1 trillion in trade volume for three years in a row. The previous records were US\$555.2 billion and US\$41.2 billion in 2011 and 2010 each.

The list of export growth rate by destination was topped by China (8.6%), which was followed by the United States (6.0%), and Southeast Asia (3.6%). Meanwhile, the exports to Japan and the EU region dropped by 10.6% and 1.0%, respectively. The ratio of exports to China to the total export amount went up from 24.5% to 26.1% between 2012 and 2013, but Japan's ratio fell 0.9 percentage points to 6.2% during the same period.

Last year, the export of wireless communication devices (21.2%), home electronics (16.8%), and semiconductors (13.3%) showed significant growth

along with petrochemical goods (5.5%) and automobiles (3.1%). However, those of steel and computers declined by 11.9% and 7.9% each. Semiconductors accounted for 10.2% of the total export amount, thanks to the increasing demand for mobile devices and an increase in the prices of memory and NAND flash chips, beating petrochemical products (9.4%) to regain the top spot of the major export item list in three years.

In the meantime, Korea recorded a trade surplus of US\$60.6 billion in China and US\$19.9 billion in the US, raising the sums from US\$53.5 billion and US\$15.2 billion of 2012. Its deficit vis-à-vis Japan decreased slightly from US\$25.6 billion to US\$24.6 billion. The exports and imports for December 2013 increased 7.1% and 3.0% to US\$48.1 billion and US\$44.4 billion, respectively. The trade surplus was US\$3.7 billion in that month, remaining in the black for 23 consecutive months, since February 2012. 



■ The Hyundai Busan container ship unloads at the Port of Los Angeles on November 2, 2013. In 2013, Korea's yearly exports grew 2.2% from a year earlier, whereas imports fell 0.8%. (Photo by Corey Seeman via flickr)

Hankook Tire

Leading Sharing Culture with “Campaign for Sharing Hope 2014”



■ Hankook Tire Infrastructure Management Board Director Lee Jae-pyo (right) stands with Secretary General of the Community Chest of Korea Kim Joo-hyun at the Campaign for Sharing Hope 2014 event on December 30.

Leading international tire manufacturer Hankook Tire (CEO Seo Seung-hwa) has donated 1 billion won (US\$938,000) to the Community Chest of Korea organizing the “Campaign for Sharing Hope 2014.” Hankook Tire has been participating in the event since 2003.

A charity fundraising event was recently held on December 30. Hankook Tire Infrastructure Management Board Director Lee Jae-pyo and Director of Hankook Tire Charity Shin Sung-gee visited Jung-gu district’s Community Chest of Korea office and participated in the event.

The gift will be used for basic welfare recipients, the disabled, the socially-disadvantaged elderly, and low-income families.

Hankook Tire has been involved in various public welfare activities, and maintaining social responsibility has been its priority. From 2010 to 2013 it has provided free replacement tires

for 2,000 of the automobiles owned by social welfare organizations around the country.


Hankook Tire provides scholarship and medical services for the socially disadvantaged and various social welfare organizations. Its symbol, the tire, implies mobility and motion, and it tries to reflect that in social programs that serve the public need, which include providing automobiles, buses, and stroll-

ers for the needy.

Hankook Tire’s Seo Seung-hwa said, “This is not a one-time event. It reflects our continued effort at providing support for the disadvantaged.” Then he added, “We will work through various channels of social welfare and will continue our culture of care and nurturing.”

Hankook Tire is the first tire company in Korea to specialize in manufacturing tires, and has long been a symbol of Korea’s industrialization. Hankook Tire sells the highest number of tires for automobiles in Korea.

But Hankook Tire is also a global company, with four overseas headquarters, thirty offices, seven manufacturing facilities, and five R&D centers. Hankook Tires are sold in 180 countries around the world. It is the fifth largest company in manufacturing and the seventh in sales revenue globally, with 80 percent of sales coming from overseas.

With extensive R&D geared at improving product quality and customer satisfaction, Hankook Tire strives to develop environmentally-friendly technologies, and plans to give back what it earned from customers through various welfare activities as it grows as a socially-conscious company. 



Atypical Engineering Automation

Hyundai E&C Develops Optical Design Technology

Hyundai Engineering and Construction (Hyundai E&C) announced on December 2 that it has developed an “atypical engineering automation” technology called



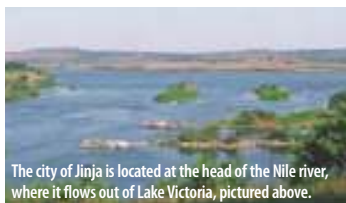
The Sydney Opera House is a representative piece of atypical architecture. (Photo by Anthony Winning)

Building Information Modeling (BMI), enabling quick, automatic design of atypical architecture. Atypical structure is an architectural term that refers to a structure that takes on a free form, unlike typical boxy-looking buildings. Atypical structures often become a landmark where they are built, but require highly-sophisticated technologies at all stages of construction, from design through engineering to execution, because of the peculiarity of the structure. The BMI developed by Hyundai is an architectural technology that designs and formulates an optimized point of origin for constructing various points across the three-dimensional plane. Hyundai has been working on this project under a Memorandum of Understanding formed with American firm Gehry Technology and Britain's Loughborough University. Hyundai had BMI on public display at the Yeosu Expo last year, and is planning to use the technology to create an atypical roof of a waterfront resort project in Sri Lanka, which it won in October. **BK**

Bridge Construction in Uganda

Hyundai E&C Enters Uganda Market

Hyundai Engineering & Construction (Hyundai E&C) unveiled on December 3 that its consortium with a Japanese firm has won a US\$128



The city of Jinja is located at the head of the Nile river, where it flows out of Lake Victoria, pictured above.

million order to build a bridge in Uganda. It is the first time that Hyundai E&C has made inroads into the African country. Hyundai E&C said that it plans to build the 525 meter long bridge across the Nile river at Jinja in southeastern Uganda, the order for which was placed by the Uganda National Roads Authority. Hyundai plans to complete the project within 48 months after breaking ground. The Korean builder said it holds a 49 percent stake (US\$63 million) in the project, while its Japanese partner Zenitaka holds the rest. **BK**

Power Plant Project in Saudi Arabia

Samsung C&T Receives \$1.2B. Power Generation Project

Samsung C&T reported on December 2 that it received an order to build the Ravik Power Generation Plant by Saudi Arabia's Power Authority



An artist's depiction of private power generation plant project Ravik 2.

SEC), a project estimated to be worth 1.3 trillion won (US\$1.2 billion). The Ravik project is to build a private power generation plant that will be constructed at Ravik industrial facility, located about 150 kilometers from Jeddah, Saudi Arabia's second biggest city. Samsung has acquired this project by working in a consortium with Saudi Arabia's Akwar Power International. With the Ravik order, Samsung has achieved overseas construction orders totaling US\$100 million this year. **BK**

Gas Plant Project in Chile

Consortium Wins \$580M. Combined Power Plant Contract



The Kelar complex contract was signed in Santiago, Chile on 29 (local time).

The Korea Southern Power Company (KOSPO) announced on December 1 that a KOSPO and Samsung C&T consortium obtained and signed a contract to develop a BHP Billiton natural gas plant worth US\$580 million in Chile. The Kelar complex will be a 517 megawatt gas-fired combined cycle power plant in Chile's mineral-rich north providing 3,400 GWh of electricity per year to BHP's deposits in the area, which include the world's largest copper mine, Escondida. The construction of the plant will start early next year and finish in the latter half of 2016. The most notable characteristic of the project is that the project owner will supply fuel and buy the total amount of produced electricity, and thus nearly 100 billion won (US\$94 million) in annual sales revenue is expected. **BK**

Smart Car Tech

Kia Motors Unveils Advanced Driving Tech at CES 2014




Kia Motors unveiled its UVO EV e-Service on January 7 (local time) at the Consumer Electronics Show (CES) 2014. The new technology is the upgraded version of its automobile telematics system UVO and supports smart phone-based remote monitoring of an electric vehicle (EV), battery charging reservations, health condition checkups using in-vehicle biosensors, and other features. Also, the service is linked to the navigation system to provide information about the locations of nearby EV charging stations, the distance to empty, and many more. Kia Motors is planning to apply the new system to the Soul EV, which hits the market this year.

At the same time, the automaker suggested a human-centered smart car as its concept for future-oriented vehicles, making use of convergence services such as next-generation voice recognition and bio-signals. For instance, the UVO predicts or suggests the next motion of the driver by means of voice recognition, while the UVO Apps allows smartphones to be used in the vehicle to assist in safe driving.

Kia also unveiled its next-generation infotainment services and technologies associated with safe and convenient driving, which will be put to commercial use within a couple of years. The examples include a vehicle infrared communications ser-

vice providing traffic information and accident warnings in advance by detecting cars ahead and road infrastructure, the Smart Radio that selects songs according to traffic conditions and the driver's mood, a full-HD heads-up display, and a system providing daily schedules and online information for the driver. The Motion & Gesture Recognition Switch that allows the car to be controlled with the hand gestures of the driver alone and U-Healthcare that recognizes his or her bio-signals are included in these examples, too.

Kia Motors has participated in the CES since 2009 and run its own exhibition booth there, which is quite rare among automakers. "We will suggest the standard for future vehicles as well as new smart car technologies based on our innovative telematics systems, so that we can be the leader of the market of human-centered smart cars," the company explained.

Experts are pointing out that Apple is taking the lead in the race when it comes to advanced preparation and the number of business partners, although Apple does not participate in this year's CES. The competition among Google, Apple, and Samsung is likely to heat up over time with the boundary between the electronics and automobile industries blurring more and more. 

Smart Car Market


Samsung, Apple, Google Vying for Leadership in Smart Car Market

Google, Apple, and Samsung Electronics are shifting the focus of their competition to the smart car industry. The Big Three IT companies and automakers unveiled a series of innovative smart car technologies at the Consumer Electronics Show (CES) 2014.

For example, Samsung Electronics demonstrated control of its i3 electric vehicle using a Galaxy Gear application it developed in conjunction with BMW. The application shows current battery status, required charging time, odometer data, etc. Also,

it is capable of controlling the in-vehicle temperature and transmitting data stored on a mobile device to the navigation system in the car through voice recognition. Samsung Electronics has recently completed patent applications both in Korea and the United States for its technologies associated with electronics mounted on engines and motors, tires, and the like.

Google is even more aggressive. It has already established the Open Automotive Alliance (OAA) with Nvidia, Hyundai Motor Company, Audi, GM and Honda. Audi is exhibiting Android-based in-car infotainment systems at the CES 2014.

It is Apple in fact that triggered the smart car race. It unveiled its iOS in the Car strategy back in June last year, combining the iPhone with dashboards, and has partnered with 12 carmakers across the world, including Mercedes Benz. The key concept of the strategy is to link the iPhone to in-vehicle infotainment systems so that various applications on the phone can be used in the car as well. Apple's senior vice president Eddy Cue said that all 12 companies will complete the integration process before the end of this year. 

Move of Car Production

GM Likely to Transfer Production from Australia to Korea

■ Pictured below is GM Korea's plant in Boryeong, which focuses on manufacturing transmissions



It has been found that GM is mulling over increasing the production of GM Korea by absorbing that of its facilities in Australia, which are scheduled to be shut down. Once the plan goes as scheduled, it is expected to be a huge boon to GM Korea, which has had some headaches about the withdrawal of the Chevrolet brand from the European market.

GM's Executive Vice President of Consolidated International Operations (CIO) Stefan Jacoby met with Korean reporters on January 14 at the Marriott Hotel in Detroit and mentioned the move. Established in August last year, the CIO manages the overseas business of the automaker across the world excluding North America, China and Europe.

"Our withdrawal from Australia will be an opportunity on the part of GM Korea," he said, adding, "Although nothing has been fixed yet, we are giving serious thought to transferring the Australian production to Korea." He mentioned the recently concluded Korea-Australia FTA and the high productivity of GM Korea as two of the reasons for such considerations. "I was very impressed by the workers' skillfulness and high productivity during my visit to the Bupyeong plant last year," he went on.

Mary Barra, who is the Executive Vice President of Global Product Development, Purchasing and Supply Chain at GM and is slated to be inaugurated as its CEO on January 15 (local time), agreed to the remarks. "We think highly of the capabilities of GM Korea as the base of manufacturing of compact and mini cars," she explained.

GM Korea has tried hard to find new export destinations. Its efforts are expected to bear fruit once the shift is determined. GM's annual sales volume in the Australian market is approximately 100,000 vehicles.

Still, the top management of GM expressed some concerns over the high production costs of GM Korea. "We will focus on strengthening our financial structure by means of higher profitability," she added, "Although it is true that GM Korea will play an important role in enhancing the brand and profitability of the Chevrolet brand down the road, it is also true that GM Korea produces the same product at a higher cost." **BR**

Annual Import Car Sales

Import Car Market Recorded 20% Growth Last Year

The Korea Automobile Importers and Distributors Association announced on January 7 that the number of newly-registered import cars was 12,405 in December of last year, a 10.5% month-on-month decrease. The total number of registered foreign cars grew 19.6% year-on-year to reach 156,497 in 2013.

Like 2012, BMW maintained the top spot with 3,066 vehicles last year. Volkswagen was in second place with 25,649 vehicles, followed by Mercedes-Benz (24,780 vehicles) and Audi (20,044). They posted sales growth of 17% to 39%. In particular, Ford (7,214), Land Rover (3,103), and Jaguar

(1,901) reported stellar sales growth in the range of 40-60%.

However, Japanese cars showed poor performance. For example, Toyota sold 7,438 vehicles in 2013, a year-on-year decrease of 31%.

Meanwhile, the BMW 520D was the most sold model among import cars last year (8,346 vehicles). The next most sold car was the Volkswagen Tiguan 2.0 TDI BlueMotion (5,500), followed by the Mercedes-Benz E300 (4,926). **BR**



■ The BMW 520D was the most popular model among import cars in Korea in 2013.

Auto Business Performance

Hyundai Motor's Profits Fell to 9.5% Last Year




■ The Hyundai Motor Company's headquarters in Seoul is located in the Yangjae district, along with the offices of Kia Motors and the two companies' parent corporation, Hyundai Motor Group. (Photo by Chu via Wikimedia Commons)

Hyundai Motor Company's business profit rate fell to a single digit, showing negative growth for the first time in three years. This can be attribut-

ed to the global economic recession, the weak dollar, and the weak yen. Things are not favorable for the company this year, either.

The automaker held a yearly earnings announcement conference call on January 23 and said that it sold 4,732,366 vehicles last year to record 87.3076 trillion won (US\$81.1961 billion) in sales, 8.3155 trillion won (US\$7.7334 billion) in operating profits, 11.6967 trillion won (US\$10.8779 billion) in ordinary income and 8.9935 trillion won (US\$8.3640 billion) in net profits.

The turnover increased 3.4% from a year earlier but the operating profit rate fell 0.5 percentage points to 9.5%. The former increased thanks to its performance in the United States, China and other overseas markets and the consolidated corporate income tax system.

Meanwhile, the operating profits dropped due to the sluggish performance and strikes in Korea. The appreciation of the won and the depreciation of the Japanese yen exacerbated the situation as well. 

KAJA Car Selection

Hyundai New Genesis Wins Best New Car of 2014

The fourth annual poll by KAJA has given the Hyundai New Genesis 39.76 points, placing it at the top. The result reflects various factors, but mainly value, performance, comfort and design


against price, as in "dollars and sense," were considered.

Second place BMW 5 Series received 38.72 points, and third place Mercedes-Benz S-Class got 38.39 points.



In the design category, the Jaguar F-Type won the Design Award. In the driving performance category the Lexus IS won the Performance award, and in the eco-friendly category, Renault Samsung's electric-powered model SM3 Z.E. won the Green Car award.

Team manager of Industry Policy Lee Kwan-sup of the Ministry of Trade, Industry and Energy (MOTIE), who was among the attendees, said, "The government will strive to improve the working conditions of the industry by putting more emphasis in supporting research and development of automobile parts, and creating a mutually-beneficial ecosystem of business between small and medium sized companies and global scale manufacturers."

Car of the Year is an award given to a newly-released automobile each year, by journalists covering the automobile industry. Korea's Car of the Year started in 2010, making this the fourth time that the award has been given. In the first year, Kia Motors' K5 won. The second year saw Hyundai's i40, and in the third year the Toyota Camry was selected. 

W-OLED vs. RGB-OLED

Samsung, LG Show Different Techs for Large Displays at CES 2014



■ LG Electronics showed off its Curved Ultra HD OLED TV with a 105-inch screen, a 21:9 aspect ratio, and a 5120x2160 5K resolution at CES 2014.

Some in the industry think that Samsung showcased its 85-inch flexible LCD TV at CES 2014 because the Korean company hasn't been able to mass-produce OLED TVs, stemming from problems with its RGB-OLED technology. Hence, Samsung is said to have tried to highlight large UHD displays instead of OLED panels.

According to industry sources in January 7, Samsung's realization of its flexible TVs with LCD panels, as opposed to LG's use of white OLED panels for its flexible TVs, indicates that LG's W-OLED technology is superior to Samsung's RGB-based technology in large OLED displays.

The W-OLED display technology involves stacking sub-pixels on top of one another. In comparison, the RGB technology is more difficult to achieve, since it requires placing each pixel next to one another. In addition, the W-OLED

method can directly realize a white screen through a separate white pixel, reducing electricity consumption. The RGB technology, on the other hand, needs all RGB pixels to make a white screen.

The W-OLED method is more advantageous than the RGB technology in price. According to a report about the cost of production of OLED TVs released by market research firm NPD DisplaySearch in September of last year, the RGB method is more than twice as high as the W-OLED method in production cost. For example, US\$7,300 (7.9 million won) is needed to produce a 55-inch OLED TV using the RGB method, while only US\$3,600 (3.9 million won) is required for the W-OLED method.

Therefore, LG seemed to stay one step ahead of the competition for large OLED TV screen early last year. The

W-OLED method appeared to be in a better position, owing to its easier realization. For instance, the firm unveiled a 55-inch OLED panel in early 2013, and a 77-inch OLED panel at the IFA 2013 in Germany in September of last year.

However, the competition became more fierce in the first half of last year, as Samsung revealed its 55-inch OLED display using the RGB method. With the rumor over an improvement in manufacturing yields emerging, the industry is paying attention to whether or not the competition between the two technologies will be more intense.

Observers say that commercialization of OLED panels with the RGB method will be difficult even after successful realization because of technological problems and costs.

An industry source said, "I don't think that RGB-based OLED displays that are larger than 55 inches will have a competitive advantage due to high production costs. Technological problems certainly do not help, either."

In response to the speculation surrounding its flexible LCD TVs, Samsung stressed that it used LCD displays for flexible TVs on purpose. The company said that the commercialization of LCD panels is easier than that of OLED displays, since it takes 3 to 5 years to perfect its OLED technology. An official at Samsung Display said, "I believe that we will be able to enhance the competitiveness of our OLED panels in the future, since the RGB method is getting better despite technical difficulties." **BK**

Google Chrome OS

Chrome OS Challenging Microsoft Windows Hegemony



Google Chrome's strategy is based on user ads, and it is expected to gain momentum as the world of PC computing shifts to cloud computing, or a computing network of computers and digital devices.

Chrome's share of the Operating System (OS) market is rising, thanks to it being free and coming with the free office automation tools offered by Google. Chrome's share in the OS market has risen to the point where it is seriously challenging Microsoft Windows' hegemony, which has been a fact of life through the last several decades of PC computing history.

According to a survey by market analysis firm NPD conducted during the Christmas shopping season, Google's Chrome OS-installed notebook, the

Chromebook, has taken a huge leap in popularity, surpassing a 20 percent share of the new notebook market.

Considering that Apple's iOS has maintained 15 percent market share in the US and 7 percent worldwide, Chrome's surge is astounding, almost historical.

The main reason that consumers are flocking to Chrome is its price, which is a lot cheaper than Windows-based PCs.

Chrome OS is based on cloud computing, or a type of computing that involves a large, cloud-like cluster of networked computers and other devices connected through the Internet. It can perform basic computing tasks only when it is connected through an Internet-enabled network. Chrome OS was first commercially sold in 2011 but was largely unsuccessful then due to a high price tag and limited functionality. But during the last two years, Chrome OS has come of age, as it has become more sophisticated and comprehensively upgraded.


Moreover, Chrome's own webstore has been releasing a steady volume of software, and the sheer variety of titles, from office documentation to entertainment, has helped enhance its functionality and made it more user-friendly.

Chrome OS's viability lies in its free, easy-to-use office appli-

cations and tools such as calendar and address book, which can be synchronized with Google Android-based smartphones. While it is now merely a terminal, an accessory to a cloud-based PC, it is expected to become more widespread when cloud computing becomes more mainstream.

Interestingly enough, Google's business model is based on advertising revenue, and not on hardware sales. This is a characteristic that makes Chrome formidable, with insiders calling it a legitimate contender to Microsoft Windows, which relies on the sale and distribution of Windows-equipped hardware.

A PC industry source said, "Apple and other manufacturers cannot 'unbreak' the ball and chains of Microsoft's influence, since they rely on sales of hardware, which is inseparable from MS Windows. But Google makes money by advertising, by focusing on the number of users clicking their ads, so to them the sale of hardware is irrelevant." Then he added, "If anything, hardware is an advertising vehicle to be used in an extension of the whole architecture of cloud computing. That is the reasoning behind the 200 dollar price tag."

As of now, Chromebooks are not being sold in Korea, and Chrome OS is essentially non-existent. However, Korea has a large number of smartphone subscribers using Android, so Chrome has a huge potential to make a dent in the local market if and when it is formally introduced. 



Alternative to Windows XP

Ubuntu Emerges as Free Alternative Operating System to Windows

As support for Windows XP ends on April 8 of next year, security concerns abound, and there are growing talks about possible alternatives to Windows XP, including operating systems (OSs) such as Ubuntu Linux.

According to an industry source on December 15, there is a heated discussion about replacing Windows XP with an alternative OS in IT communities at home and abroad, since the market for PC operating systems (OS) has been divided into largely MS windows and Mac OS, without any other significant operating systems. But the issue of a third option has now become a reality, as Windows XP is going to be retired.

There are various talks on how to continue using the retired Windows XP and how to install an alternative OS to replace it.

The most talked-about OS is Linux. Linux has been around for a long time, but has not before been easily usable to average users because of the lim-



■ Linux's Ubuntu is emerging as an alternative to Windows XP, but lacks compatibility with computers in public offices and banks.


ited driver support of graphic cards and compatibility with propriety Microsoft software. And it was difficult to install. However, Ubuntu Linux has evolved to the point where novice users can install it easily. It is free, and basic programs come automatically installed. Also, users can install various multimedia codec and extensions such as Adobe Flash easily during installation.

According to a software industry source, "Ubuntu does not support as wide an array of programs like Windows but is easy to install, and has evolved into a highly sophisticated program,"

adding, "PC users today do not need clunky packaged software. In a desktop environment today, users can perform most of the tasks with the aid of a simple browser."

Ubuntu not only offers Google's Chrome and Mozilla's Firefox but a browser for Linux, as well. When using Chrome, users can synchronize their preferences settings, and Internet surfing and working with basic documents becomes an easy task. Ubuntu also supports the Korean language natively, and can run on low-power PCs such as net-book. Most important for some, Ubuntu is free.

The only drawback of using an alternative OS like Ubuntu is that they are incompatible with the security requirements of web sites run by public offices, banks, and some online shopping portals. Windows has been a de facto OS for a long time in these environments, and installing an alternative OS is not yet practical.

As the era of Windows XP draws to a close, companies are expected to jump ship and explore the option of applying other web-based office systems that are not tied to any particular OS, since it is likely that in the future Windows 7 and 8 will meet the same fate as Windows XP. 

Internet of Things

Government Focuses on Growth of Internet of Things



The Internet of Things (IoT) can be defined as a set of intelligent infrastructure and service technologies that allow the exchange of information and interaction among people and things based on information and communications technology. It is currently in wide use in a variety of fields, including payment, wireless security, blood-sugar testing, smart farming, and natural disaster prevention.

"Global enterprises are rushing into the IoT market and no one can be sure

who the winner will be," said the ministry, adding, "We have discussed the national strategy since October last year and the finalized plan will be established and announced in March." It went on, "The plan will revolve around common and standardized platforms matching global standards, which will be a boon to dealing with the problem of limited market growth caused by the redundant development of and incompatibility among products."

The national strategy is predicted

to also include measures that will help start-up and small-sized firms reduce their development costs and shorten the development periods. These are expected to lower the entry barriers significantly for the benefit of newly established companies. At the same time, the compatibility among developed products are going to be enhanced through standardization and international cooperation in the sector will be further boosted.

According to market research firm Gartner, the global IoT market is forecast to reach 47 trillion won (US\$44 billion) in size by 2015. At present, global leaders such as Intel, IBM, Oracle, Google, and Qualcomm are working on related technologies and expanding the market at a rapid pace, and Korea is about 1.2 years behind the leaders in the industry. 

Mobile Security Vulnerabilities

Are Samsung Smartphones Seriously Vulnerable to Security?



■ A serious security vulnerability was reportedly found in Samsung's smartphone app Knox.

The Wall Street Journal (WSJ) reported on December 24 that a serious security vulnerability was found in Samsung's smartphone app Knox.

Mordechai Guri, a researcher at Israel's Ben-Gurion University's Cyber Lab, alleged that a critical security vulnerability was discovered earlier this month, which would allow outsiders to breach the smartphone's security and access supposedly secure user data.

The Knox app is designed to protect corporate data on a personal smartphone, data such as email, contacts, and calendar information. But in a worst-case scenario, hackers could install a Trojan on a Knox-enabled phone that could enter the corporate security network via the Knox app and wreak havoc.

Samsung is reportedly conducting its own investigation, but announced that similar allegations have been made before, and that the problem is not as serious as Guri claims.

Samsung also argued that in order to run Knox properly there must be additional software installed, but the lab's testing was done without the required software.

The WSJ also reported earlier this month that system errors have been repeatedly found in Knox, prompting consumer complaints.

Samsung's Refutation on Vulnerability

Samsung Electronics made an official objection to the research results of the Ben Gurion University of Israel. The latter's cyber security research institute claimed that it detected security vulnerabilities in KNOX, which is a smartphone security solution of Samsung.


Specifically, the institute announced late last month that the KNOX installed on the Galaxy S4, Galaxy Note 3, and the like is vulnerable to data theft. The announcement was made by the Wall Street Journal and some other media

sources.

Samsung Electronics posted a reply on January 12 on the KNOX official blog, saying, "The research result means that unencrypted network connections can be intercepted between mobile devices and an application in a case when a fair Android network function is misappropriated." It added, "It did not point out any defect on the part of the Android operating system or KNOX."

The mock attack implemented by the university is a Man in the Middle, or MitM attack. It is characterized as a middleman intruding between two connected destinations to take a look at the communications moving between them. What the institute proved is that a MitM can be carried out even in applications installed by the users themselves.

"The result just reconfirms the importance of the encryption of application data ahead of the transmission of the data on the Internet," Samsung Electronics said. "As such, it has nothing to do with a weak point of the Android OS or KNOX."

It also explained that Android OS itself supports security solutions such as SSL/TLS, built-in VPNs, etc. In addition, KNOX provides protection measures against MitM attacks. Examples include Mobile Device Management (MDM) and Per-App VPN. The former is for proper setting of sensitive data on the devices according to corporate policy and blocking them in the event of an attack. The latter allows only pre-designated applications to transmit data via virtual private networks. KNOX uses the FIPS 140-2 encryption algorithm as well, which is a standard of the National Institute of Standards and Technology (NIST). 

Altered Smartphone Strategy

Samsung Electronics Refocuses on Mid-end Phones

Samsung Display will reduce the supply of AMOLED panels while significantly increasing that of less expensive LCD panels next year. This is because Samsung Electronics is going to focus on the sale of mid-market LCD handsets in 2014. The mobile phone manufacturer has recently asked Samsung Display to cut the supply price of small to mid-size AMOLED panels, too. The change in business strategy is expected to affect the performance of Samsung Display next year.

According to industry sources, Samsung Electronics is strengthening its lineup of mass-market mobile phones to better penetrate emerging markets such as India and China. The purpose is to shift its business focus amid the saturation of the high-end smartphone market. This is a source of trouble for Samsung Electronics' partner firms, including Samsung Display, as they cannot avoid a decrease in profit margins.

"We have to increase the supply of cheaper LCD panels instead of OLED


panels with higher added value due to Samsung Electronics' business strategy," said Samsung Display, adding, "Although the supply volume might become larger than before, it is almost sure that we cannot avoid a drop in profitability."

Its concerns are becoming a reality already. Samsung Electronics' record high performance during the first three quarters of this year is attributed to its mass-market products. Only three out of the nine smartphones released by Samsung Electronics this year were high-end ones.

"The monthly sales of the mobile phone component manufacturers associated with Samsung Electronics began to decrease in June, when the company started to release a variety of mid-end phones," said Samsung Securities analyst Jo Seong-eun. It is said that Samsung Display, which has specialized in the production of small to mid-size OLED panels, is reorganizing the L6 production lines located in Cheonan

City, South Chungcheong Province to manufacture small PLS, or plane-to-line switching, LCD panels.

As of the end of Q3, the average price of Samsung Display's 3.1-inch or larger OLED panels for smartphones was US\$49.6, whereas that of LCD panels was US\$16.48. Likewise, each of the five-inch, full-HD LCD panels used in the Galaxy S4 was US\$44.40 while that of the AMOLED panel was as expensive as US\$58.20. The latter's profitability is four to five times higher than the former's as well.

Samsung Display has concentrated on the manufacturing of AMOLED panels in most of its production lines and supplied most of its products to Samsung Electronics. Specifically, Samsung Electronics accounts for over 60% of its gross sales. "Besides, Samsung Electronics has recently demanded that the supply price of AMOLED panels be cut by at least 10%, although we cannot reveal the exact number," an official at Samsung Display added. 



■ Samsung Electronics launched the mid-tier phone Galaxy Win at a 550,000 won price point in November this year.

Mobile Advertising Market

Google, Facebook, Twitter Eyeing Korean Mobile Ad Market



The world's leading technology companies Google, Facebook, and Twitter have an eye on the Korean mobile advertisement market.

In response, local Internet companies are introducing a variety of ad products, but it is not easy for them to compete with those large IT corporations. The difficulty is largely due to local companies' alleged unfair business deals centered on Naver that have come under the investigation of the Korea Fair Trade Commission.

According to industry sources on December 12, Korea's mobile market has been so rapidly growing that its smartphone penetration rate is 79.5%, ranking first in the world. With the mobile market growing, the size of its mobile ad market has also increased nearly six times, from 76.1 billion won (US\$72.3 million) in 2011 to an estimated 416.9 billion won (US\$396.1 million) this year.

In tandem with strong market growth, the influence of mobile advertising is growing as well. According to media representative MezzoMedia, the effectiveness of mobile ads is Hankook Tire Charity on the daily use of mobile phones, PCs, and TVs released by the Nielsen Company in June shows that on average, Koreans spend more time in activities with their mobile phones (203 minutes) than PCs (86), or TVs (180).

Google's domination of the mobile ad market in Korea and other countries has been accelerating. The company comprises 55.97% of the global market worth US\$11.335 billion (11.9267 trillion won). Google is making great

inroads into the Korean market by enhancing its service.

Facebook and Twitter are also making full-scale expansion into the local market. In particular, Facebook, which established its Korean branch in 2011, is planning to expand its reach to Korea in line with the appointment of a new president.




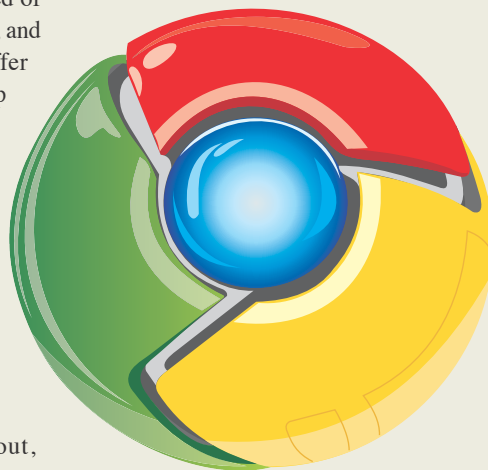
Facebook has seen its profits from ads soar. Its sales amounted to US\$2 billion in Q3 2013, a 60% year-on-year gain. Advertising constitutes 49% of total sales. Recently,

the firm launched its new mobile ad product that shows the function of the app prior to installation by inserting a video in the ad for the app installation. The social media company is providing a video ad service that shows members 15 second or less clips on both smartphones and the Web, and operating an ad platform called Facebook Exchange (FBX) on a trial basis.

Twitter's move is worth noticing. In November, the company officially introduced various ad products composed of Promoted Tweets, Promoted Trends, and Promoted Accounts. It began to offer those ad products in partnership with six advertising sales agencies, including Nasmedia, Mable, MezzoMedia, Wisebirds, 24/7 Real Media, and Incross. An official at an advertising sales agency said, "Twitter has kicked into high gear through its visits to advertising sales agencies, starting in the week of its release of new ad products."

An industry source pointed out,

"This year has witnessed numerous mobile ad products by overseas companies such as Google, Facebook, and Twitter, as well as local ones using social networking services (SNS) like KakaoTalk and Line." The source added, "I think that a new form of advertising that combines SNS and mobile ads will increase next year, owing to diversified methods for mobile ads. As a result, intense market competition is expected." 



Turbulence of Kakao

Kakao Losing Popularity in Overseas Markets



Kakao emerged as a star in Korea's IT industry with its mobile messenger Kakao Talk. However, its new subscriber acquisition rate is slowing down these days, along with the pace of growth of its major game services. It is also losing ground in overseas markets.

According to industry sources, its total cumulative number of subscribers has recently exceeded 130 million just five months since the 100 million mark was surpassed in July this year. Still, those in the know say that the performance is something less than expected. The number of subscribers of Naver Line increased from 200 million to 300 million during the same period, while that of Tencent's WeChat went up from 400 million to 600 million to become the largest messaging network in the world.

35 million out of the 130 million users are those using the service in Korea. Kakao's local market share is indeed overwhelming given that the number of smartphone users in Korea is approximately 37 million. However, the growth rate is moving sideways, as the Korean smart phone market is reaching saturation.

The company set up Kakao Japan in July 2011 to open up the global market in earnest. It used to make headlines by topping the application download charts in Japan, Vietnam, Indonesia, and other countries, becoming the most famous Korean mobile messenger thanks to the popularity of Korean

pop culture in these regions.

However Naver Line, which focused on overseas markets from the beginning, is catching up with it. Although it made its debut 15 months later than Kakao Talk, it is growing explosively in Southeast Asian countries such as Japan, Taiwan, and Indonesia. Even Kakao's joint venture with Yahoo Japan established in October last year and its large-scale marketing campaigns have done no wonders. In China, WeChat has a firm grip on the market.

The GameHagi service associated with KakaoTalk messenger is losing steam, too. Sales are showing consistent growth, but more users are losing interest in the service, as an increasing number of similar games are available by other companies. During the early stages, small developers' mobile games like Ani Pang and Dragon Flight enjoyed huge popularity. No less than nine games have recorded cumulative downloads of at least 100 million up to now.

The problem is that their popularity has been declining since July this year, the first anniversary of the launching of GameHagi. No game has posted 100 million hits since that month. For example, Monster Taming from NetMarble, which is the top of the list now, has reached just five million downloads four months since its debut. This is because GameHagi is increasingly led by major studios, and similar games are available in the

market. Kakao is trying to tackle the situation by releasing imported games in cooperation with overseas firms, but the outlook is not that bright.

Moreover, its ambitiously-launched new services are fighting a hard battle, too. One of the typical examples is the Kakao Page for paid mobile content. After one year in the market, it is now considered merely a commonplace Webtoon service. The mobile shopping mall service Kakao Style and the closed social networking service Kakao Group have failed to distinguish themselves as well.

Users are also complaining about server errors occurring more frequently than before. The company had as many as four server errors in 2013 alone. Kakao Talk transmits as many as 5.2 billion daily messages on average, and many people are criticizing it for its unstable service.

Under the circumstances, it is expected that the company's annual sales for this year would be short of the earlier estimate of 250 billion won (US\$237 million). A downturn in sales could result in a decrease in marketing expenses, which, in turn, could lead to a vicious cycle. WeChat spent as much as 200 billion won (US\$190 million) on marketing this year, and is planning to double the amount in 2014. Line is mulling over doubling its marketing expenses next year to 200 billion or so, too. **BA**

Flexible Tablets

Samsung Awarded Patent for Flexible Display for Tablets

According to the US Patent and Trademark Office (USPTO) and US-based IT news site Phone Arena on January 3, Samsung Electronics was granted a design patent named Portable Multimedia Terminal (Patent US D696,693 S) on December 31, 2013. The patent was first filed in September 2012.

The patent shows a visual rendering of a tablet that can be folded like a book or notebook using a flexible display.

The IT news site wrote, "We do hope that once (and if) such tech becomes more than a feverish dream of Samsung's display department, it'll go through rounds of miniaturization that will see to it that smartphones don't have to miss out on all the foldable fun."

However, it is going to take a long time for this product to be available on the market, in that an advance in technology for panels is necessary for this patent to be realized.

Recently, Samsung applied for a

patent from the USPTO for a curved smartphone capable of bending lengthwise (US D696,216 S), after the launch of the Galaxy Round, the world's first curved display smartphone. According to a patent specification released by the USPTO, the design is similar to that of the Galaxy Note 3. A slot for the S pen indicates that the device belongs to one of the Galaxy Note series. **RE**

Samsung vs. Apple Battle for Largest Tablet

Samsung and Apple are expected to wage an all-out war in the global tablet market with the introduction of their new large tablets during the first half of this year at the earliest.

According to industry sources and the foreign media on January 2, the Korean tech giant is planning to reveal its 12.2-inch tablet at CES 2014 in Las Vegas. The tablet called the Galaxy Note Pro 12.2 is emerging as Samsung's flagship model aimed at helping the company capture the top spot in the global tablet market this year.

The Korean company narrowed the gap with its competitor in the global tablet market to 6.9% in the third quarter of last year. Therefore, the success or failure of Samsung's next product could be a decisive factor in its future domination of the global market.

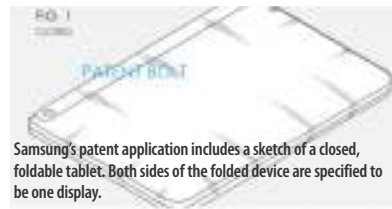
Like Samsung, arch-rival Apple is reportedly gearing up to unveil its 12.9-inch ultra-high-definition tablet, tentatively named the "iPad Maxi," within the year, which promises four times the resolution of existing high definition tablets. Apple's move can be seen as a shift in strategies toward product diversification, in that only a 9.7 inch model (iPad) and a 7.9 inch version (iPad mini) have been launched so far.

The reason for the two companies' attempt to develop large UHD tablets is attributable to their desire to increase their B2B display market share.

Research firm Strategy Analytics reported that the global tablet market is projected to double in size within two years. The number of tablets sold in 2015 is expected to reach nearly 340 million units, a twofold increase from 2013. **RE**



Samsung's 12.2 inch tablet that will probably be called the Galaxy Note Pro 12.2.



Samsung's patent application includes a sketch of a closed, foldable tablet. Both sides of the folded device are specified to be one display.

Chromebooks

Mobile Carriers May Offer Free Chromebooks with LTE Subscriptions This Year

Chromebooks, which run the Google Chrome OS, will include LTE connectivity starting this year. Thus, a power shift in the global PC market is likely to occur.

According to Reuters on January 15, major manufacturers of Chromebooks, including HP, will release 4G LTE-capable

versions this year.

Previously, some Windows laptops have come with 3G or LTE connectivity. However, people must be connected to the Internet to use most of the functions of Chromebooks. So LTE connectivity makes total sense for them. And with their low prices, they are getting more popular.

Chromebooks are in the price range of US\$250-US\$299. These laptops are so affordable that they might soon be provided free of charge as part of an LTE subscription, depending on mobile carriers and agreements here in Korea.

Samsung is also preparing to release a next-gen Chromebook, and thus its LTE-powered model is likely to be showcased next. **RE**

■ Acer's \$299 touchscreen Chromebook was released last November.



Naver vs. Kakao

Waging All-out Cold War

The competition between Korean web giant Naver and the nation's top mobile messaging company Kakao will be intense in 2014. They are waging an all-out war to penetrate local and global markets by making inroads into the territory of each other's core businesses.

According to industry sources on January 14, Naver is going to feature BAND, its center for a mobile gaming community, in the first half of this year. Kakao, on the other hand, is reportedly considering launching a news content service.


Last year, the country's top portal operator won an overwhelming victory over Kakao thanks to Line. Kakao Talk attracted 130 million subscribers, mainly in the local market, whereas Naver's Line enticed 330 million people mostly in Japan. Line also took one step forward in the South Asian market, where both companies competed with other smartphone messengers, including WeChat, Facebook, and What's APP. The gap between the two Korean firms is expected to lead to a difference in profits after 2014, since the messenger service is directly linked to a rise in sales of its main content such as mobile games.

With the total subscribers of BAND increasing to 23 million (18 million Koreans included), Naver's business that integrates social networking into mobile games is getting a lot of attention. Industry analysts are saying that the Korean Internet giant will construct and connect a channeling platform such



as KakaoTalk games to Naver Social Apps. In particular, the attraction of BAND lies in the fact that mobile gaming companies can avoid paying Google's taxes, where 30% of the total sales are deducted in advance, by using Naver's mobile community service.

Kakao's future introduction of its news content service is also receiving a lot of attention in the industry. Currently, Naver represents an absolute proportion of the online news service market. Around 23 million users browse news on Naver's PC and mobile platforms. However, Kakao's introduction is likely to result in the widespread use of the service during a short period of time, as its gaming platform did. In addition, the industry is paying attention to Kakao's way of editing News, and its consultation about the distribution of news with relevant news agencies.

It is possible for the mobile messenger service provider to reap profits from advertising. Nonetheless, the fact that Kakao aims to expand its influence by entering the online news service market, which is dominated by portal sites, is appealing. 

Kakao IPO

Kakao to Be Listed Next Year

Kakao Corp., which provides the Kakao Talk service, announced on January 6 that it is pushing forward with a plan to go public on the Korean Stock Exchange in May of next year.

This is the first time for the company to mention a specific date about its listing. An official at Kakao confirmed by saying, "We are preparing to be listed in May 2015," adding, "That is our goal. So, the timing can be changed, depending on the situation." The official added, "Our firm reached

the conclusion that we should not hasten our listing in order to have the company evaluated properly. So, we delayed our plan."

Kakao's stocks are reportedly traded over-the-counter at around 90,000 won. The securities industry anticipates that the company's market cap will reach 5 trillion won (US\$4.6 billion) once it achieves 500 billion won (US\$468 million) in sales this year. 



Alliance with China

Apple Taking Swing at Samsung with China Mobile

Apple will enter the world's biggest market for mobile telephony, China, with the aid of China Mobile. Apple will duke it out with Samsung's latest LTE phones, which are scheduled for launch next month, setting the stage for a battle of the heavyweights in China.

Apple has announced that Apple and China Mobile have signed a multi-year agreement on December 22 to launch Apple's iPhone via China Mobile's distribution network.

As such, next year's iPhone 5S and 5C models will be sold starting January 17. In addition, preorders will also begin on December 25. Apple and China Mobile have been working on reaching a deal for a long time, but Apple's insistence on guaranteed sales volume has delayed the agreement.

China Mobile's strategy is to lure high-end consumers by steadily supplying Samsung and Apple's premium smart phones. China's second largest mobile carrier China Unicom has been selling iPhones since 2009, and China Telecom Corp, China's third largest, began selling iPhones in 2012.

As a result, Apple's deal with China Mobile has coincided with Samsung Electronics' new product roll out. China Mobile has previously announced an LTE Service Roll-Out Event held in Guangzhou on December 17 and 18 that it would launch the Galaxy S4 and Galaxy Note 3. Samsung is currently distributing a Galaxy Note 2 exclusively designed for China Mobile. The Galaxy S4 and Galaxy Note 3 will be available as early as next month.

Samsung and Apple will clash in the existing mid-end market with the Samsung Galaxy Note 2 and iPhone 5C, and in the premium high-end market Samsung's double-team will get in the ring

with the iPhone 5C.

Samsung and Apple now set their sights on 1.2 billion users of China's market and geared up for a long, sustained battle for growth. China Mobile, now a partner of Apple, is the world's single largest mobile carrier with 750 million subscribers.

Apple's CEO Tim Cook said, "China is an important market," then

added, "Agreement with China Mobile is an opportunity to distribute iPhones in the world's biggest market."

According to market research firm Cantor Fitzgerald, the number of iPhone users subscribing to China Mobile is estimated to be 3.5 million to 4.5 million already, and next year an additional 2.4 million iPhones will be sold. 



China Mobile will distribute the iPhone 5S and 5C in January of next year.

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Hanvit D&S

Providing One-stop Solution from Design to Management of New and Renewable Energy Systems



Lee Hyun-hwa
CEO of Hanvit D&S

“So what about the solar energy market? We have not even scratched the surface yet. There is absolutely no need to listen to naysayers.”

“The solar energy market is stagnant for the moment, both locally and overseas. We are not down for the count. We will bounce back.” Hanvit D&S’ CEO Lee Hyun-hwa sounds supremely confident. He is a believer in the famous Pareto principle, named after the Italian economist Vilfredo Pareto, or the 80-20 rule, which reasons that 80 percent of the results come from 20 percent of the causes. “Our industry is a typical example of the Pareto rule, and the efforts and time that we put in to our work, in maintaining the top position, have started to show. I am not worried.”

Hanvit D&S was established in 2001, and specializes in providing a one-stop solution for designing, supervising, consulting, and managing new and renewable energy systems for solar, bio, geothermal, and wind energy, and fuel cell and Energy Storage Systems (ESS). Recently it has increased its international standing by participating in solar energy power projects in coun-

tries such as Mozambique and Algeria. Lee Hyun-hwa said, “Africa suffers from a lack of adequate power, and offers highly valuable market opportunities.” Then he further stressed, “We will spread our span of business globally.”

Solar Power Total Solution is a service that provides step-by-step consulting on each stage of building a power facility, before the actual start of the project.

Hanvit D&S was in charge of designing and supervising the nation’s first 150KW class plant, which was built in Marado Island.

In the MW power class, Jeonnam Province’s 1 MW Kangjin Solar plant was designed and is now supervised by Hanvit D&S. Design and supervision of the Taeon (14MW) and Boryeong (10MW) solar power plants are projects of Lee Hyun-hwa’s company as well. There are well over 100 solar energy power plants in the country, and the total amount of power generation is 200MW.

Lee said, “Design is a critical element in building a solar power plant. The drawback of solar power is the relatively high cost, compared to that of nuclear and thermal power. As such, managing the efficiency of solar power generation is crucial in determining the feasibility of the project and the plant’s commercial value. That efficiency factor is decided in the design stage.”

Hanvit D&S has also recently formed partnership with Korea Veterans

Association (KorVA), which is known for its conservative guidelines in selecting partners. Both parties adopted the slogan Realization of Energy Security and signed a memorandum of understanding.

A source with KorVA said, “We have gone through extensive review of many companies specializing in consulting for solar energy. And Hanvit D&S was a company that satisfied both our requirements on the depth of technology understanding and the level of trust.”

With this agreement, Hanvit D&S will set out to work with KorVA in overseeing its energy power business. With years of experience and expertise under its belt, Hanvit D&S will provide consulting on solar energy development, site surveys, grid-building, approval, and maintenance. Hanvit D&S will work with KorVA closely, sharing information on efficient energy management and producing eco-friendly businesses such as solar energy power facilities and energy service companies, or ESCO.

Lee Hyun-hwa said, “Based on our knowledge and experience, we will facilitate cooperation in the area of energy management.” He then added, “With our KorVA partnership, We will hope to enhance the nation’s capability in efficient energy management.”

Lee Hyun-hwa was a smart and bright kid in middle school, but he had no choice but to take night classes because his family was poor. He had to divide his time between studying and working.

Lee recalled, “We were extremely poor. I worked a number of jobs and night shifts, including auto repair and

Hanvit D&S' CEO Lee Hyun-hwa is saying
“Life is a Never-ending Challenge. Just Give It Try!”

*Here is a story of renewable energy business and a unique businessman
 who was a poor newspaper boy and an electrical engineer, and now is giving lectures
 in universities as a professor studying further to become a lawyer.*

newspaper delivery. I ended up finishing middle school for industry technicians relatively late.”

He also took night school when he entered college, at Chosun University in Gwangju, to study electronics. During the day he worked at Korea Coal Corporation's Hwasoon Sales Office. While working the day shift, He managed to get his master's degree in electrical engineering. With aspirations and the ambition to reach higher ground, he moved to Seoul and began working in Seoul's Rapid Transit System, formerly Seoul Metro, where he became a leader of the labor union.

“I resolved the conflict that labor was involved in, with itself and with the management, through negotiation and dialogue. Upon reading books on labor conflicts I discovered that the relationship was not one-sided in favor of labor unions. It was designed to benefit both the management and labor.”

He received trained certificates in semiconductor, lighting, telecommunications and fire management. Mr. Lee said, “I did not want to be pigeonholed to being an electronic engineer. I wanted to become an expert in many different fields.” He also said, with confidence, “A common thread can be found in a lot of different disciplines, and it is not really that difficult. Anyone can do it.”

In 2010, on The Ninth Annual Technicians Day, he received a Science and Technology Medal. It is the highest achievement award for electrical construction and electrical engineering, and so he became a figure known for both expert knowledge and field experience.

Lee also introduced a role model for a solar energy plant when he was charge of the design and supervision of the



solar energy facility, Yeongheung plant, Korea's first solar energy plant with a power capacity of over 1 MW.


Lee also dug deep into his professional life and published 10 books based on his experiences from his early years, including Basics of Electronics, Solar Energy for Low-Carbon and Green Growth, Design and Construction of Solar Energy Power, and Solar Energy Made Easy. The books not only cover theories and technological aspects of solar energy but serve as basic guides on marketing, including even customer service. His experiences in design, engineering and field supervision were responsible for getting the books written and published.

In his books, he said, “I explained in detail the design, construction, and application of solar energy during construction, site management, service, and marketing. Thus everyone from technical novices to field engineers and businesses entering the field could use the books as guides. I felt that there was a lack of adequate guidebooks in the industry, and it propelled me to write.”

Lee received a doctoral degree from the University of Seoul in Electrical and

Electronic Engineering, and is currently a professor and faculty member at Korea Polytechnic University, Gwangju University, Suwon Science College, and Seoil University. He is actively involved in many organizations as well, as a Korea Electrical Contractors Association lecturer, a member of the legislative committee at Korea Electric Engineers Association, Korea Technology Society's APEC committee member, a supervisor for the Korea Construction Electrical Equipment Technology Society, and Korea Environment Corporation's Design Consultant.

He has also overcome cancer, and regained his strength and spiritual energy.

His ambition and aspirations have no end. He has just entered law school in Hallym University's Graduate School of International Studies. He said, “As Korea gains further prominence in international business, with increasing trade volume, the demand for US lawyers is increasing.” The university's law school is partnered with US law schools, and provides a curriculum of general US law as well as preparation for becoming US lawyers. 



Interview with VC Expert

“Bolder Reforms, Incentives Needed in Venture Ecosystem”

Park Ki-ho, vice president and head of Venture Capital Division of LB Investment

The Park Geun-hye administration has busily set about establishing guidelines for the Creative Economy, with a focus on creating an environment conducive to nurturing venture businesses. The slogan “At the heart of the Creative Economy is venture business” has been unanimously agreed upon. The first course of action taken was setting a “Blueprint for Overhauling the Virtuous Cycle of the Venture Ecosystem,” which has excited the venture entrepreneur community at large. In light of this heartening atmosphere, BusinessKorea met with LB Investment’s Vice President Park Ki-ho, the front runner in the world of venture capital, to discuss the prospects that lie ahead.

What are some of the issues that Korea’s venture capital industry faces in the so-called virtuous cycle of the venture business ecosystem?

The key issue is the structure in which the virtuous cycle is set up, from the very point of a business’s foundation to its fruition. While there is a lot of hope in the beginning, venture businesses often run into obstacles and end up being reduced to small businesses and manufacturing houses relying on loans.

As for raising funds, it is important to increase the bandwidth to attract angel investment and the necessary funds in the initial stage of venture formation. However, the average amount

of funds invested in a venture startup is 25 percent, compared to the US, which invests nearly 35 percent. That is a meager amount.

We must seek to stop the seemingly endless cycle of angel investment, recoup and reinvestment, and then restart of a failed venture. But it is difficult to recoup the investment from a venture business, as the only channel available is listing on the Korea Securities Dealers Automated Quotation or KOSDAQ, which is a tall order. The number of KOSDAQ-listed venture businesses is decreasing every year.

The Blueprint for Overhauling the Virtuous Cycle of the Venture Ecosystem

tem has been announced. Do you see any problems?

The government’s idea is to structurally design the virtuous cycle of venture businesses, so that the life cycle of a venture business, from the very formation to investment, recoup, reinvestment, and restart, will be streamlined and expedited when necessary. Basically, it is a process of rebuilding our venture industry to mirror the likes of Silicon Valley.

With the lessons from the first generation of venture entrepreneurs, the ground has been set for a system of reinvestment and mentoring, so that the legacy of success can trickle down to the next generation of venture businesses.

The idea of funding for startups has been changed as well, as the focus has shifted from borrowing a loan to getting investment.

Moreover, a systematic and step-by-step nurturing system has been set up to bolster angel investment, to streamline M&As, and to establish KONEX, or the Korea New Exchange, along with a blueprint for diversifying strategies, the prevention of technology theft, and the recruitment of enterprising professionals.

So how do you evaluate the current situation?

I think we are headed in the right direction. Apparently, public officials have paid close attention, calling the process of reinvesting and restarting an “ecosystem.” Tax breaks on angel investment are also timely and appropriate, as it has shifted focus from that of lending to investing.

However, I feel that further action could be taken to relax taxation. Those of us in the venture industry feel that too much emphasis has been put on creating startups and not on those that are already in business.

What about plans for attracting venture capital?

As I stressed before, rules must be in place to attract angel investment. In addition, we need to push for the introduction of crowd funding, bolstering the market for Mergers and Acquisitions, or M&As, and rejuvenating the KOSDAQ. Up to this point, M&As between big companies and small and medium-sized companies have often gotten a bad rap, and has often been labeled corporate raiding. But in the US the very goal of venture entrepreneurs is to reach an M&A with a big corporation. Likewise, we need to encourage an environment that is conducive to M&As, especially with technology-oriented companies. However, the KOSDAQ has a relatively high barrier to entry. And the NASDAQ has a lot of companies with negative balance sheets.

Creating a venture-friendly environment is essential in breeding successful

enterprises at the global level. Success stories of M&As, much like success stories of world-famous golfer Park Se-ri, breed a series of promising, wanna-be startups like the “Park Se-ri kids.”

Let us talk about your company, LB Investment. It is widely recognized as a leading business in your circles.

LB Investment originally started as LG Startup Investment in 1996, and since then has grown into a private equity fund that has vast interest in venture and medium-to-global scale companies in Korea and China. We changed our name in July 2008 to LB Investment. Our total venture fund amounts to more than 600 billion won [US\$555.6 million], and so far we have invested in 340 companies and scored high returns.

Last year, with the National Pension Service, we raised 50 billion won (US\$46.3 million), and successfully established a fund totaling 100 billion won (US\$93 million). The annual rate of return was 15 percent. Suffice to say that we achieved both a scale of economy and profit at the same time.

You are operating a subsidiary in Shanghai, China, correct?

We established a regional office in Shanghai in 2007. With the aid of Shanghai’s staff, we are currently operating two funds totaling 110 billion won (US\$102.3 million). In September 2012 we also formed a subsidiary called LB Investment (Shanghai) Co., Ltd. with five Chinese investors.

The investment market in Korea has reached a saturation point, and it is inevitable that we look at opportunities abroad, with the goal of becoming a company that specializes in global investment. As such, our plan for this year includes accruing a cross-border fund of roughly 150 billion won (US\$138.9 million).

We have already sold two Chinese companies and earned 2.8 and 4.9 percent profit, respectively, against investment.

We hear that there are plans to separate the venture capital and private

equity businesses.

In 2012 we had already split our company into two divisions, each with its own administration. Next year we will see the births of two companies that will handle venture capital and private equity separately. It is more efficient to operate in two different units, because each area is different, and therefore requires different investment approaches. For instance, venture capital is riskier since it involves investing in emerging businesses that are technology-based, while private equity is geared toward safer investment. 

Vice President Park Ki-ho graduated from Yonsei University with a degree in Business Administration, and received VCT training in Stanford University’s MBA program.

He is in charge of telecommunications, semiconductors, and display products. He has been with LB Investment for eleven years since he started working in 2003, which is rare in an industry that is synonymous with job-hopping. He has said, “Our secret to success is to work with our customers in achieving a win-win result.”

Mr. Park has acquired extensive knowledge and training from working at National Venture Capital Co., Ltd. and Silicon Valley’s VC, or Asset Management Company, for 7 years between 1988 and 1994, when venture capital was a relatively new concept in Korea.

From 1995 onward, he worked for five years as a business team leader in Hyundai Electronics’ telecommunications division on various high-tech projects such as a Global Mobile Personal Communications System, and gained recognition as a leading expert in Information Technology.

He is in charge of overseeing investment as an executive at STIC Investment, which specializes in investment in Information Technology, and has been responsible for helping the growth of renowned IT companies such as Telechips Inc., Topfield, and New C&C, with highly successful results.

Mr. Park won Korea’s Best Venture Capitalist in the category of IT, and won an award cited by the Prime Minister for his achievements in IT investment.

Graphene Replacement

IBS Develops New Semiconductor Nanomaterial Synthesis Method

The Institute for Basic Science (IBS) announced on January 14 that Chemistry Department Professor Choi Hee-cheol at POSTECH and his research team developed a method for the synthesis of molybdenum disulphide (MoS₂) using a gold catalyst. He is cur-


rently heading the Center for Artificial Low Dimensional Electronic Systems at IBS.

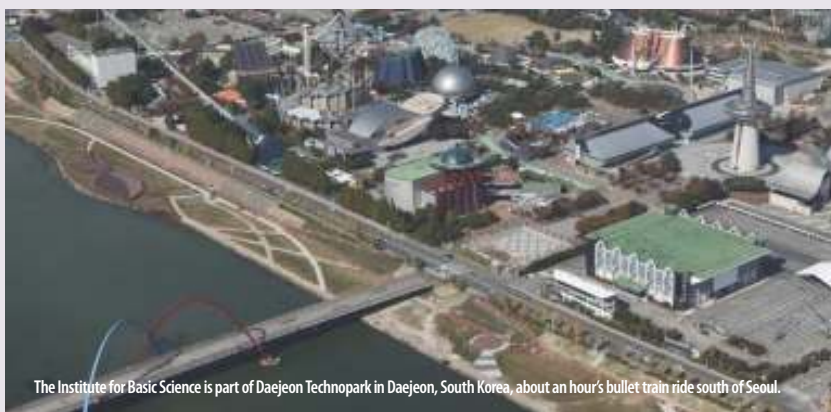
According to the institute, the new method allows MoS₂ to be synthesized within a large area and any desired geometrical shape, and to be produced in the

form of a semiconductor device.

The research team succeeded in synthesizing and separating MoS₂ to the thickness of one atom using the principle that a surface alloy is formed through the separation of molybdenum atoms and mixing them with gold when a chemical compound containing molybdenum is injected onto the surface of gold. It is considered to be a more developed method than simple deposition.

"It is expected that MoS₂ will be able to be further utilized in the semiconductor industry for the manufacturing of bent and transparent electronic devices," the team explained, adding, "Also, it is a layered semiconducting material, although somewhat similar in structure to graphene, which is a conductor, and thus is predicted to be in wider use in a variety of fields such as solar cells, low-power transistors, flexible displays, and transparent electronic devices."

The research result is available in the online edition and the inside back cover of the January edition of the *Angewandte Chemie*, a renowned international chemistry journal. 



The Institute for Basic Science is part of Daejeon Technopark in Daejeon, South Korea, about an hour's bullet train ride south of Seoul.

Antarctic Research

Korea's First Antarctic Research Base Nearly Complete

Construction of the 4,500 square meter Jang Bogo Station, Korea's first research base in Antarctica, will be completed on February 14.



The Ministry of Ocean and Fisheries made this announcement as the ceremony for the send-off of the first research crew team and appointment of two honorary ambassadors were held.


Antarctica's normal temperature is

-34 degrees Celsius, making outdoor work virtually impossible. Construction can only be done 65 days out of the year, and in the past most countries' attempts to build bases in Antarctica often resulted in delays of up to 1 year. But Jang

Bogo will be completed quicker than expected on February 14.

Jang Bogo Station is 4,500m², large enough for a research staff of 60. It runs on power generated by wind and solar energy.

The first group of researchers - Korea's first ever to be placed in Antarctica - undergo rigorous acclimatization training before leaving on January 25. They will stay at Jang Bogo until the end of the mission, which will be completed on December 31.

Moon Hae-nam from the Ministry of Ocean and Fisheries said, "Since establishing the first outpost in 1985, Korea has become the tenth country in the world to hold two research bases in Antarctica." He then exclaimed, "This is a proud moment for Korea." 



51

49

균형 잡힌 무게 배분으로 안정감을 더하다



| 51:49 차체 전후 무게배분 | 제네시스의 균형잡힌 무게배분이 급회전 시 안정적이면서도 민첩한 핸들링을 가능케 하다

*량(단) 3.3 GDI / 2WD / 픽업차의 변속기 기준 (소수점 이하 반올림)



■ HTRAC

주행상황에 따라 최적의 구동력을 배분하는 전자제어 AWD 시스템

■ ATCC 선회제동 시스템

급커브 시 차량의 주행안정성을 높여 주는 최첨단 제어장치

■ AEB 자동 긴급 제동 시스템

긴급상황에서 운전자의 피해를 최소화 해 주는 안전장치

■ 스마트 공조 시스템

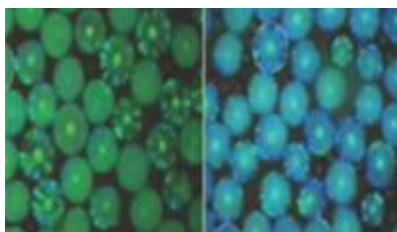
쾌적한 내부 환경을 위한 실내 CO₂량 자동 조절 장치



■ 구입문의 및 고객센터, 긴급봉사반 원콜서비스 080-600-6000 ■ 정부공인 표준연비 및 등급
 -V6 램다(단) 3.3 GDI A/T (2WD, 18") : 복합 9.4km/ℓ (도심 8.1km/ℓ, 고속도로 11.7km/ℓ) | CO₂ 배출량 : 189g/km | 배기량 : 3,342cc | 공차중량 : 1,900kg | 자동8단(4등급) -V6 램다(단) 3.3 GDI A/T (2WD, 17") : 복합 9.0km/ℓ (도심 7.7km/ℓ, 고속도로 11.5km/ℓ) | CO₂ 배출량 : 198g/km | 배기량 : 3,342cc | 공차중량 : 1,880kg | 자동8단(5등급) -V6 램다(단) 3.3 GDI A/T (AWD, 18") : 복합 8.8km/ℓ (도심 7.6km/ℓ, 고속도로 10.9km/ℓ) | CO₂ 배출량 : 203g/km | 배기량 : 3,342cc | 공차중량 : 1,970kg | 자동8단(5등급) -V6 램다(단) 3.3 GDI A/T (AWD, 17") : 복합 8.5km/ℓ (도심 7.2km/ℓ, 고속도로 11.0km/ℓ) | CO₂ 배출량 : 210g/km | 배기량 : 3,342cc | 공차중량 : 1,950kg | 자동8단(5등급) -V6 램다(단) 3.8 GDI A/T (2WD) : 복합 9.0km/ℓ (도심 7.7km/ℓ, 고속도로 11.3km/ℓ) | CO₂ 배출량 : 199g/km | 배기량 : 3,778cc | 공차중량 : 1,930kg | 자동8단(5등급) -V6 램다(단) 3.8 GDI A/T (AWD) : 복합 8.5km/ℓ (도심 7.4km/ℓ, 고속도로 10.5km/ℓ) | CO₂ 배출량 : 210g/km | 배기량 : 3,778cc | 공차중량 : 2,000kg | 자동8단(5등급) ▶ 위 연비는 표준모드에 의한 연비로서 도로상태, 운전방법, 차량적재, 정비상태 및 외기온도에 따라 실주행연비와 차이가 있습니다 ▶ 급출발, 급가속 및 급제동을 하지 마십시오 ▶ 정속주행을 합시다 ▶ 현대자동차는 지점/대리점의 카마스터를 통해서만 판매하며, 전국 어느 곳에서나 같은 제품 같은 가격으로 바른 거래를 실천하고 있습니다

Microcapsulating Technology

Korea Develops Technology to Microcapsulate Photonic Crystals Using Osmotic Pressure



A KAIST research team applied the principle of osmotic pressure to minute water droplets that contain nanoparticles in microcapsulated photonic crystals.

A research team led by Kim Shin-hyun, Assistant Professor of Chemical and Biomolecular Engineering at KAIST, announced on January 15 that it successfully developed a technology to microcapsulate photonic crystals, which is regarded as a next-gen optical material, by using osmotic pressure. The study was conducted in a partnership with Harvard University.

The refractive index of photonic crystals changes periodically at half of the wavelength of light. In fact, photonic crystals are called semiconductors for light, since they can control light propagation at specific wavelengths, and promise innumerable technological applications. They can be found in nature in the wings of butterflies or the tails of peacocks.

However, it has been difficult to commercialize photonic crystals due to the fact that a change in colors is impossible, in that reflected colors are mostly realized by a fixed structure. The complicated manufacturing process is not helpful, either.


To address the problem, the team improved the manufacturing process by encapsulating liquid crystals to form ink capsules, and fabricating photonic crystals in the form of microcapsules at the

100-nanometer level. In addition, the research team used rubber covers for those capsules in order to freely change their shape.

The research team also applied the principle of osmotic pressure to minute water droplets that contain nanoparticles. With the volume of water droplets decreasing because of osmotic pressure, nanoparticles themselves were arranged

in a regular manner, which led to the formation of liquid crystals inside capsule covers. The team was finally able to make microcapsules of photonic crystals with a uniform size by using microfluidics that realized a small passage at the 100-nanometer level.

Professor Kim said, "It is possible to commercialize ink capsules of tiny photonic crystals, which could be used for next-gen reflective-type color displays that can be bended or folded. Those photonic crystal capsules could also be utilized as core optical materials to make body-insertable biosensors."

The research findings were published online in the January 7 issue of *Nature Communications*, a bi-monthly scientific journal published by the Nature Publishing Group. 

Anti-Cancer Research

Protein Opens Door for New Cancer Research



The Korea Advanced Institute of Science and Technology is located about an hour's train ride south of the capital Seoul.


The Korea Advanced Institute of Science and Technology (KAIST) Graduate School of Medical Science and Engineering has discovered a new type of protein, RhoJ, that is responsible for the spread of blood vessels in cancerous areas.

The school announced that a type of protein called RhoJ, generated only in cancerous blood cells, was critically responsible for the spread of blood vessels inside cancerous areas.

Blood vessels in cancer cells carry nutrition and oxygen to cancer cells and play a critical role in spreading cancer throughout the human body. If the flow of blood to cancer cells can be halted, the spread of cancer cells can be stopped, and the cancer cells themselves will die.

A study on laboratory rats showed that those that had the RhoJ protein removed showed significant reduction in the spread of cancer cells in breast cancer, lung cancer, and skin cancer.

Dr. Ra Sun-yeong from Yonsei University's Center for Cancer said, "This preliminary report is a credible point for developing real medicine. But we need more research in this area." She went on to add, "It is intriguing, even uplifting from a clinician's perspective, that a new study has been found that enables target double results with one medicine."

This study was published in the international cancer society journal *Cancer Cell*. 

Touch Sign

ETRI Develops Touch Sign for Accredited Certification




The device on the keychain, the YubiKey NEO, is a near-field communication device that can be sensed and used as a signature when held next to a device with near-field communication technology.

The Electronics and Telecommunication Research Institute (ETRI) has developed a new certification method for smartphone-based financial transac-

tions. Named Touch Sign, this technology is expected to address the problem of the theft of accredited certificates reaching over 10,000 in number a year.

The institute announced on January 14 that the innovative certification technology allows electronic signature and transaction logins when a user touches his or her smartphone with a cash card, a debit card, or the like with a built-in security function. The Touch Sign incorporates NFC security module control technology, user terminal certification technology, card-based user certification technology, electronic signature technology for face-to-face transactions, and mobile certification management technology. It is regarded to be highly convenient yet still secure.

At present, most accredited certificates are present in the form of a file stored on a PC, and are not free from infection with viruses and malignant code and intrusions by hackers.

In contrast, with the Touch Sign, the certificates can be stored on a USIM card or micro SD of a smartphone with enough security. Also, these can be put in an NFC card, as with a public transit card, and thus can be free from smishing. 

Nurturing of Bio-refinery

Korea to Build Ecosystem for R&D Cooperation




KRIBB President Oh Tae-kwang (center) stands with representatives of the biochemical industry at the MOU signing ceremony between businesses and R&D institutions in the biorefinery sector at KRIBB's headquarters in Daejeon, Korea on December 23.

Experts from the biochemical industry and research centers will construct an ecosystem for open R&D cooperation to foster the biomass-based biochemical industry.

The Korea Research Institute of Bioscience & Biotechnology (KRIBB) announced that it held an MOU signing ceremony for cooperation between businesses and R&D institutions in the bio-

refinery sector on December 23 in its headquarters in Daejeon City. In attendance were representatives of six large businesses, seven medium companies, and 25 small and mid-sized enterprises. A bio-refinery is a facility that produces fuel, energy, and chemicals from biomass using biotechnology.

KRIBB will support research and development of industries aimed at converting the chemical industry based on oil into a biochemical one based on biomass.

The cooperative body is planning to establish a joint lab between Korea and Malaysia, build a network that supports companies involved in making bio-refineries, plan big R&D projects, and construct a system that offers technical support to companies. 

Rumor Verification

Korea Develops Technology to Verify Authenticity of SNS Rumors



■ The Korea Advanced Institute of Science and Technology is located about an hour's train ride south of the capital Seoul.

The Korea Advanced Institute of Science and Technology (KAIST) announced on January 9 that a research team led by professor Cha Mee-young at KAIST successfully developed a technology that can determine whether or not rumors on social networking services are true, with 90 percent accuracy. The study was conducted in partnership

with Seoul National University and Microsoft Research Asia.

The team analyzed characteristics of more than 100 rumors circulating on Twitter between 2006 and 2009 about politics, IT, health, celebrities, and other fields. The results showed that the method was especially effective in differentiating defamatory rumors that target cer-

tain persons and institutions from true stories.

For example, presidential candidate Barack Obama was rumored to be Muslim, anti-Christian, and to have obtained US citizenship illegally. However, those rumors turned out to be false. In addition, the research team found malicious rumors and false information about actress Nicole Kidman, which said that she underwent a sex change operation or she is a bisexual.

Professor Cha said, "This research is done through the convergence of statistics and mathematics models with sociological and psychological theories. After analyzing data, our team was able to grasp the attributes of rumors that tend to receive more attention." She added, "It is difficult to identify the authenticity of rumors at the very beginning. But the identification is made possible after time passes, or when those rumors are widespread, based on a sufficient amount of data."

The research findings were presented at the IEEE International Conference on Data Mining in December 2013. **BR**

Efficient Biochips

Making the State of the Art More Efficient



■ Each biochip has hundreds to thousands of reactive areas, which can be seen on this glass biochip. (Photo by Argonne Laboratory via Wikimedia Commons)

Dr. Chang Jae-won of Pukyong National University has developed a new method of creating biochips that increases their shelf life to up to one year, according to the Ministry of Science, ICT and Future Planning on December 25.

Biochips are small glass or metal slides with hundreds or thousands of locations, or wells, packed tightly together in which biochemical reactions can take place. They are the state of the art in biological research on small, complex molecules. They are used in disease diagnosis, and the detection of chemical agents or even viruses. But since they are extremely small and consist of so many tiny areas, they are often difficult and expensive to manufacture. In addition, if the reactions require the presence of protein molecules in the reaction wells, the shelf-life of these expensive biochips can be less than two weeks. After that time, the proteins embedded in the reaction wells denature, and the

biochip is wasted.

But Dr. Chang Jae-won has found a way around the problem. He has discovered a method to print aldehyde-terminated silane micro- and nano-array templates on glass. These glass biochips can be printed out before they are needed remain reactive to proteins for up to one year, which means they can be stored. Then, when a biochip with proteins embedded on it is required, these printed biochips can simply be dipped into the appropriate protein solution. The aldehyde-terminated silane that is already on the chip actively binds to the proteins, pinning them to the biochip and therefore making it ready for experimentation.

This streamlined production of biochips can be used to speed up the process of research fields as diverse as curing cancer, developing new drugs, and fighting the problem of aging. **BR**

Int'l Cooperation in Genome Research

Supercomputers Employed for Personalized Cancer Treatments



KISTI signed an MOU on December 26 with the Samsung Genome Institute and the Center for Biomedical Informatics of Harvard Medical School for joint cancer genome research.


An international cooperation system for cancer genome research has been set up for personalized cancer treatment, prediction, and prevention.

The National Institute of Supercomputing and Networking of the Korea Institute of Science and Technology Information (KISTI) signed an MOU on December 26 with the Samsung Genome

Institute of Samsung Medical Center and the Center for Biomedical Informatics of Harvard Medical School for this purpose.

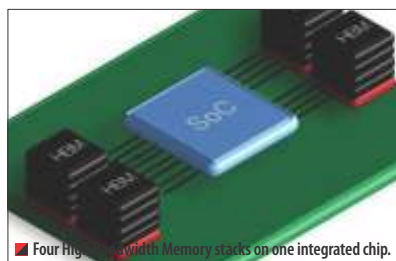
According to the agreement, the Center for Biomedical Informatics provides the most advanced genome data analysis technology, while cancer cell genomes collected and produced by the Samsung Genome Institute are transmitted and analyzed by the research networks and supercomputers of KISTI.

At present, the three organizations are participating in the TCGA Consortium of the United States for renal cancer research.

"We hope that the agreement will lead to greater cooperation in genome research in Korea," said Lee Ji-soo, director of the National Institute of Supercomputing and Networking. 

Moore's Law

SK Hynix Develops 4x Faster DRAM



■ Four High Bandwidth Memory stacks on one integrated chip.


SK Hynix reported on December 26th that it has developed the industry's first High Bandwidth Memory (HBM) DRAM, using Through-Silicon Via (TSV) chip packaging technology.

TSV is a method of transmitting electrical signals through chips by way of creating an electrode that vertically passes through two or more chips, enhancing performance efficiency and reducing chip size.

The DRAM, which is undergoing

review for standardization by the Joint Electron Device Engineering Council (JEDEC), is a high-performance, low-power, high-density memory product. It only draws 1.2 volts of power per 1GB of data processed per second. Through its 1,024 Input/Output Gateways it can transfer 128GB of data per second, about 4 times faster than GDDR5 with 40% less power required.

SK Hynix used TSV technology to stack 4 DRAM chips on top of each other, each chip only 20nm high. The company worked in conjunction with leading graphic chipset maker AMD to put the chips in a System in Package (SiP) on a single circuit board.

The product is projected to be used in the graphics-heavy high-performance market, with future applications in super-computer networks and servers. 

Wireless Charging

Korea to Revise Wireless Charging Technology Standards




■ A smartphone being charged by a magnetic inductive pad. The National Radio Research Agency will revise the standard for technology of radio wave-applied equipment.

The National Radio Research Agency (NRA) announced on December 23 that it will revise the standards for equipment that use radio waves on December 24.

The NRA said that the revision lays the groundwork for the commercialization of magnetic resonance-based wireless charging equipment. When using the magnetic resonance method, charging is done by adjusting the radio frequency between a device and a wireless charger. In contrast, the magnetic inductive charging method requires a device to be put on top of a charging pad.

Recently, Korean mobile phone manufacturers have completed the development of products using the magnetic resonance method, and thus magnetic resonance-based wireless chargers are likely to become mainstream in the first half of next year.

Wireless power transmission technology refers to the method to transfer electricity from a charger to a device using the inductive principles of magnetic fields, without the need of a charging board.

Meanwhile, the revision includes a guideline for the frequency that wireless power transmission equipment uses and the voltage levels per method. 

Content Export

Exports Likely to Log US\$5.1 Bil. in 2013, Games Comprising 60%



■ A screenshot from Maple Story, still a very popular game in South Korea

The Korean content industry is growing, helped by robust exports of games and a steady increase in domestic sales.

According to estimates released by the Ministry of Culture, Sports and Tourism (MCST) on December 16, exports of the nation's content industry are expected to grow 10.6% year-on-year to reach US\$5.1 billion for the first time at the end of this year.

The game industry forms an essential part of the content industry. Outbound shipments of games are projected to hit US\$2.9 billion in 2013, up 11.2% from a year ago. The figure represents nearly 60% of total content exports.

The animation and character industries also have grown in stature. Exports

of animation and character products are predicted to record US\$620 million, a 10.2% year-on-year gain. In addition, outbound shipments of music content are forecast to amount to US\$270 million, up 17.1% percent from 2012.

MCST estimated that the total sales of the content industry will increase 4.9% year-on-year to reach 90 trillion won (US\$85.6 billion) this year. The game industry is likely to expand 9.9% year-on-year to mark 10 trillion won (US\$9.5 billion) in revenue, proving that the industry is one of the major growth engines. The prediction is largely attributable to the fact that dramatically increased sales of mobile games are projected to be the main contributor to the industry's growth.

On top of that, the animation and character industries are expected to post 8.7 trillion won (US\$8.2 billion) in sales, up 8.9% from the previous year, thanks to the success of local animations such as Larva and RobocarPoli.

The growth of the Korean movie market in 2013 is noticeable as well. In fact, the number of local viewers has already passed the 200 million mark for the first time. Miracle in Cell No. 7 attracted more than 10 million people. Eight other movies — The Face Reader, Snowpiercer, Berlin, Secretly Greatly, Hide and Seek, Cold Eyes, and The Terror Live — also led growth in the movie market by drawing over 5 million viewers each. **BR**

Multicultural Families

Kumho Tires Conducts Homecoming Event for Vietnamese Families



■ Participants of Kumho Tires' Homecoming Program for Korean-Vietnamese Multicultural Families take a commemorative photograph before leaving for their home country.

Kumho Tires announced that 10 Vietnamese families in Korea flew to their home country in the morning of January 24 through its Homecoming Program for Korean-Vietnamese Multicultural Families. The company selected 20 participants for the program to achieve their long-cherished dream for six days in a fully-sponsored project.

"I could not go back to my country for nine years since marriage, due to the lack of time and economic situation, but I am so happy now as I can show my kids to my parents for the first time ever," said one of the participants, adding, "I truly appreciate Kumho Tires, which is doing business in Vietnam as well, for helping me visit my own country and family."

"This program has the purpose of helping married Vietnamese women living in Korea to better settle into Korean society," managing director Kim Soo-ok of the company explained, continuing, "We will keep trying to become a bridge between the two countries, providing continuous support for multicultural families in Korea and the Koreans living in Vietnam."

In the meantime, Kumho Tires sponsored the 3rd Vietnam Cultural Festival for the promotion of cultural exchange between Korea and its population residing in Vietnam. The festival was attended by the Vietnamese ambassador to Korea Pham Huu Tri and approximately 2,000 local residents, multicultural family members, etc. The event provided a variety of programs such as a singing contest, an exhibition of traditional cuisines of Vietnam, a quiz event, and a special performance by the Ho Chi Minh City Art Company. Kumho Tires was awarded an appreciation plaque there for its contribution to bilateral exchange, too.


"We have organized the event so that Koreans living out of their own country can be better blended into the society and feel compatriotic affection," the company remarked, adding that it would continue to foster the development of amicable relations between Korea and Vietnam. Kumho has opened cultural festivals and run Korean language classes in the country since it signed an MOU last year for the support of Korean communities there.



■ Kumho Tires sponsored the 3rd Vietnam Cultural Festival last year.

In the meantime, Kumho Asiana Group Chairman Park Sam-koo met with Vietnamese Deputy Prime Minister Nguyễn Xuân Phúc on January 19 at the Westin Chosun Hotel Seoul. They discussed how to promote bilateral relations and economic cooperation between the two nations.

The Deputy Prime Minister expressed gratitude for the Kumho Asiana Group's active investment in Vietnam and its contribution to cultural exchange and social contribution. The chairman responded by saying that he would do his utmost down the road for common economic and cultural prosperity.

Kumho Tires entered the Vietnamese market in 2007, when it set up a natural rubber processing plant there. It built Vietnam's first tire manufacturing facilities in the following year in Binh Duong Province, too. At present, it is producing 3.3 million units of tires there each year. Additionally, the group established the Kumho Asiana-Vietnam Scholarship Foundation in 2007, and has provided scholarships to a large number of local students. 

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